

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 13.05.2012  
Date of Reporting : 14.05.2012

### I. Regional Availability/Demand:

Demand Met	Evening Peak (20:00 Hrs) MW			Demand Met	Off Peak (03:00 Hrs) MW			Day Energy (Net MU)	
	Shortage	Requirement	Freq* (Hz)		Shortage	Requirement	Freq* (Hz)	Demand Met	Shortage
30605	1802	32407	49.81	27344	820	28164	50.05	704.7	35.98

\* 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	48.49	11.31		59.80	54.84	63.92	9.09	123.72	1.04
Haryana	44.45	0.92		45.37	45.52	42.45	-3.08	87.81	0.51
Rajasthan	68.41	0.00	10.30	78.71	48.38	44.24	-4.13	122.95	0.00
Delhi	31.69			31.69	57.29	44.80	-12.50	76.48	0.01
UP	80.76	8.96	7.20	96.92	93.26	112.29	19.03	209.21	31.31
Uttarakhand		17.19		17.19	11.38	12.20	0.82	29.39	0.15
HP		13.00		13.00	11.76	8.82	-2.94	21.82	0.00
J & K		14.13	0.00	14.13	17.75	14.67	-3.08	28.79	2.95
Chandigarh				0.00	5.05	4.48	-0.56	4.48	0.00
<b>Total</b>	<b>273.78</b>	<b>65.51</b>	<b>17.50</b>	<b>356.79</b>	<b>345.21</b>	<b>347.86</b>	<b>2.65</b>	<b>704.66</b>	<b>35.98</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	4983	116	-242	190	5002	0	400	190	4.55
Haryana	4608	0	-242	294	3061	0	-249	294	7.05
Rajasthan	5159	0	-8	-396	4379	0	-839	-396	-9.50
Delhi	3445	0	-383	452	2863	0	-202	452	10.84
UP	8690	1536	1202	72	9143	720	463	75	1.74
Uttarakhand	1467	0	156	27	1083	0	-69	26	0.65
HP	631	0	-313	-636	692	0	-158	-418	-11.33
J&K	1409	150	-51	-393	938	100	-435	-393	-9.67
Chandigarh	214	0	-27	0	182	0	-9	0	0.24
<b>Total</b>	<b>30605</b>	<b>1802</b>	<b>92</b>	<b>-390</b>	<b>27344</b>	<b>820</b>	<b>-1097</b>	<b>-169</b>	<b>-5.42</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	1582	1575	34.80	1450	34.80	0.00
	Rihand I STPS	1000	915	997	995	22.05	919	21.96	0.09
	Rihand II STPS	1000	965	1041	1045	23.28	970	23.16	0.12
	Dadri I STPS	840	593	772	455	10.31	429	10.51	-0.21
	Dadri II STPS	980	914	506	480	14.34	597	14.52	-0.19
	Unchahar I TPS	420	389	334	356	9.01	375	8.93	0.08
	Unchahar II TPS	420	404	442	434	9.07	378	8.89	0.18
	Unchahar III TPS	210	201	217	156	4.55	190	4.43	0.12
	ISTPP (Jhajjar)	1000	725	725	195	12.72	530	12.49	0.22
	Dadri GPS	830	804	565	387	10.67	445	11.25	-0.58
	Anta GPS	419	389	246	224	5.69	237	5.83	-0.14
	Auraiya GPS	663	609	283	314	7.06	294	7.04	0.02
	<b>Sub Total (A)</b>	<b>9782</b>	<b>8358</b>	<b>7710</b>	<b>6616</b>	<b>163.54</b>	<b>6814</b>	<b>163.82</b>	<b>-0.28</b>
	B. NPC	NAPS	440	0	0	0	0.00	0	0.00
RAPS- B		440	369	415	420	8.94	373	8.86	0.09
RAPS- C		440	420	460	473	10.02	418	10.08	-0.06
<b>Sub Total (B)</b>		<b>1320</b>	<b>789</b>	<b>875</b>	<b>893</b>	<b>18.96</b>	<b>790</b>	<b>18.94</b>	<b>0.03</b>
C. NHPC	Chamera I HPS	540	534	540	540	8.99	375	8.92	0.07
	Chamera II HPS	300	297	299	298	5.13	214	5.33	-0.20
	Bairasuil HPS	180	182	182	182	3.60	150	4.16	-0.56
	Salal-HPS	690	592	436	559	12.44	518	14.21	-1.77
	Tanakpur-HPS	94	46	63	30	1.15	48	1.19	-0.04
	Uri-HPS	480	476	479	478	11.57	482	11.57	0.00
	Dhauliganga-HPS	280	277	278	0	3.75	156	3.28	0.47
	Dulhasti-HPS	390	388	412	395	9.18	383	9.10	0.08
	Sewa-II HPS	120	80	85	75	1.91	80	1.90	0.00
	<b>Sub Total (C)</b>	<b>3074</b>	<b>2872</b>	<b>2774</b>	<b>2557</b>	<b>57.71</b>	<b>2405</b>	<b>59.66</b>	<b>-1.95</b>
D. NJPC	Nathpa Jhakri	1500	1600	1614	762	22.16	923	22.21	-0.05
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1600</b>	<b>1614</b>	<b>762</b>	<b>22.16</b>	<b>923</b>	<b>22.21</b>	<b>-0.05</b>
E. THDC	Tehri HPS	1000	430	434	0	5.05	211	5.00	0.05
	Koteshwar HPS	400	300	302	87	2.50	104	2.40	0.10
	<b>Sub Total (E)</b>	<b>1400</b>	<b>730</b>	<b>736</b>	<b>87</b>	<b>7.55</b>	<b>315</b>	<b>7.40</b>	<b>0.15</b>
F. BBMB	Bhakra HPS	1480	684	1162	543	16.71	696	16.42	0.29
	Dehar HPS	990	430	495	450	10.53	439	10.32	0.21
	Pong HPS	396	126	243	60	3.11	130	3.02	0.09
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1240</b>	<b>1900</b>	<b>1053</b>	<b>30.35</b>	<b>1265</b>	<b>29.77</b>	<b>0.58</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	154	0	1.43	59	1.33	0.10
	KWHEP HPS(IPP)	1000	0	500	360	11.62	484	12.24	-0.62
	Malana Stg-II HPS	100	0	40	26	0.72	30	0.00	0.72
	Shree Cement TPS	300	0	134	126	3.15	131	2.70	0.45
	<b>Sub Total (G)</b>	<b>1592</b>	<b>0</b>	<b>828</b>	<b>512</b>	<b>16.92</b>	<b>705</b>	<b>16.27</b>	<b>0.65</b>
<b>H. Total Regional Entities (A-G)</b>	<b>21535</b>	<b>15589</b>	<b>16437</b>	<b>12480</b>	<b>317.20</b>	<b>13217</b>	<b>318.06</b>	<b>-0.86</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	850	22.82	951
	Guru Nanak Dev TPS(Bhatinda)	440	216	200	4.56	190
	Guru Hargobind Singh TPS(L.mbt)	920	956	957	21.10	879
	Thermal (Total)	2620	2222	2007	48.49	2020
	Total Hydro	1148	378	393	11.31	471
	<b>Total Punjab</b>	<b>3768</b>	<b>2600</b>	<b>2400</b>	<b>59.80</b>	<b>2492</b>
Haryana	Panipat TPS	1367	1094	1000	23.98	999
	DCRTPP (Yamuna nagar)	600	0	0	0.00	0
	Faridabad GPS (NTPC)	432	378	281	7.55	315
	RGTPP (khedar) (IPP)	1200	542	404	10.80	450
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	235	0	2.12	88
	Thermal (Total)	4944	2249	1685	44.45	1852
	Total Hydro	62	38	39	0.92	38
	<b>Total Haryana</b>	<b>5006</b>	<b>2287</b>	<b>1724</b>	<b>45.37</b>	<b>1890</b>
Rajasthan	kota TPS	1240	1173	1160	27.19	1133
	suratgarh TPS	1500	1123	1136	26.16	1090
	Chabra TPS	500	194	180	3.82	159
	Dholpur GPS	330	135	99	2.62	109
	Ramgarh GPS	111	0	0	0.57	24
	RAPS A (NPC)	300	0	37	0.74	31
	Barsingsar (NLC)	250	113	99	2.58	107
	Giral LTPS	250	0	0	0.00	0
	Rajwest LTPS (IPP)	540	119	238	4.74	197
	VSLP LTPS (IPP)	135	0	0	0.00	0
	Thermal (Total)	5156	2857	2949	68.41	2850
	Total Hydro	550	0	0	0.00	0
	Wind power	1843	321	425	9.43	393
	Biomass	91	0	36	0.87	36
	Solar	128	0	0	0.00	0
	Renewable/Others (Total)	2062	321	461	10.30	429
	<b>Total Rajasthan</b>	<b>7767</b>	<b>3178</b>	<b>3410</b>	<b>78.71</b>	<b>3279</b>
UP	Anpara TPS	1630	1119	1118	25.80	1075
	Obra TPS	1382	486	444	10.20	425
	Paricha TPS	640	339	406	7.60	317
	Panki TPS	210	140	110	2.60	108
	Harduaganj TPS	665	259	32	3.30	138
	Tanda TPS (NTPC)	440	187	190	4.58	191
	Roza TPS (IPP)	1200	540	545	13.10	546
	Anpara-C (IPP)	1200	234	513	9.36	390
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	180	186	4.21	176
	Thermal (Total)	7817	3484	3544	80.76	3365
	Vishnuparyag HPS (IPP)	400	203	218	4.88	203
	Other Hydro	527	252	49	4.08	170
	Cogeneration	981	300	300	7.20	300
	<b>Total UP</b>	<b>9725</b>	<b>4239</b>	<b>4111</b>	<b>96.92</b>	<b>3835</b>
Uttarakhand	Total Hydro	1303	758	673	17.19	716
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>758</b>	<b>673</b>	<b>17.19</b>	<b>716</b>
Delhi	Rajghat TPS	135	56	55	1.31	54
	Delhi Gas Turbine	282	227	237	5.68	237
	Pragati Gas Turbine	330	282	291	7.01	292
	Rithala GPS	108	28	29	0.55	23
	Bawana GPS	677	36	246	5.14	214
	Badarpur TPS (NTPC)	705	480	565	11.99	500
	Thermal (Total)	2237	1109	1423	31.69	1320
	<b>Total Delhi</b>	<b>2237</b>	<b>1109</b>	<b>1423</b>	<b>31.69</b>	<b>1320</b>
HP	Baspa HPS (IPP)	330	98	98	2.78	116
	Malana HPS (IPP)	86	47	13	0.67	28
	Other Hydro	589	410	382	9.55	398
	<b>Total HP</b>	<b>1005</b>	<b>555</b>	<b>493</b>	<b>13</b>	<b>542</b>
J & K	Baglihar HPS (IPP)	450	438	436	10.50	437
	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>14.13</b>	<b>589</b>
<b>Total State Control Area Generation</b>		<b>31767</b>	<b>15330</b>	<b>14825</b>	<b>356.79</b>	<b>14663</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>2220</b>	<b>1240</b>	<b>47.89</b>	<b>1995</b>
<b>Total Regional Availability(Gross)</b>		<b>53302</b>	<b>33987</b>	<b>28545</b>	<b>721.88</b>	<b>29875</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	10133	7718	4845	131.55	5481
State Control Area Hydro	5368	2585	2238	60.63	2526
<b>Total Regional Hydro</b>	<b>15500</b>	<b>10303</b>	<b>7083</b>	<b>192.18</b>	<b>8008</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	200	2.20	1.82	0.38
Gwalior-Agra (D/C)	530	491	1023	0	15.08	0.00	15.08
Zerda-Kankroli	1	-231	93	231	0.00	1.95	-1.95
Zerda-Bhinmal	93	-189	206	216	0.00	0.27	-0.27
Malanpur-Auraiya	110	50	0	110	0.00	1.30	-1.30
Badod-Kota/Morak	0	-103	0	103	0.00	0.67	-0.67
<b>Sub Total WR</b>	<b>934</b>	<b>-182</b>			<b>17.28</b>	<b>6.01</b>	<b>11.27</b>
Pusauli Bypass	-49	-66	148	139	0.87	0.58	0.29
MZP- GKP (D/C)	500	536	722	0	13.80	0.00	13.80
Patna-Balia(D/C)	396	416	506	0	9.27	0.00	9.27
B'Sharif-Balia (D/C)	292	381	488	0	8.17	0.00	8.17
Barh - Balia(D/C)	0	0	281	0	2.52	0.00	2.52
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	139	127	145	0	3.20	0.00	3.20
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>1286</b>	<b>1422</b>			<b>37.92</b>	<b>1.30</b>	<b>36.62</b>
<b>Total IR Exch</b>	<b>2220</b>	<b>1240</b>			<b>55.20</b>	<b>7.31</b>	<b>47.89</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	Through ER	Through WR	Through ER	Through WR
33.27	0.42	33.69	-1.31	-2.05	3.90	4.80	2.30	-2.30

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
38.58	0.35	38.93	36.62	11.27	47.89	-1.96	10.92	8.96

**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	0.50	10.30	98.20	88.40	24.30	1.30

<----- 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	Hz				
50.54	18.04	49.42	20.07	49.90	0.34	0.15	50.37	49.70

**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	411	18:02	398	22:30	0.0	0.0	0.0	0.0
Gorakhpur	400	431	18:03	14	15:56	0.0	0.0	46.1	0.3
Bareilly	400	424	18:04	396	22:06	0.0	0.0	1.3	0.0
Kanpur	400	416	18:02	394	22:07	0.0	0.0	0.0	0.0
Dadri	400	419	18:01	400	22:07	0.0	0.0	0.0	0.0
Ballabgarh	400	422	18:00	401	22:17	0.0	0.0	0.7	0.0
Bawana	400	421	18:05	402	22:07	0.0	0.0	0.0	0.0
Bassi	400	425	18:02	398	21:15	0.0	0.0	1.2	0.0
Hissar	400	414	18:00	394	22:34	0.0	0.0	0.0	0.0
Moga	400	423	18:00	402	10:14	0.0	0.0	1.4	0.0
Abdullapur	400	0	00:00	9999	00:00	0.0	0.0	0.0	0.0
Nalagarh	400	422	18:02	405	10:38	0.0	0.0	0.6	0.0
Kishenpur	400	416	06:01	399	21:04	0.0	0.0	0.0	0.0
Wagoora	400	409	04:03	383	21:01	0.0	11.7	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	471.28	287.87	480.81	474.82	453.13	588.40
Pong	426.72	384.05	402.81	288.96	411.10	534.70	73.74	215.94
Tehri	829.79	740.04	749.35	44.52	818.65	982.26	125.91	160.00
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 13.05.2012 :**

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 : 13.05.2012

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER