

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 14.05.2013  
Date of Reporting : 15.05.2013

### 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
33972	1559	35531	50.00	33397	890	34287	50.08	834.7	31.57

\* 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	46.20	9.23		55.42	78.74	79.63	0.88	135.05	0.29
Haryana	52.17	0.59		52.76	68.97	64.06	-4.92	116.81	0.06
Rajasthan	89.49	0.00	9.54	99.03	61.56	58.37	-3.18	157.40	0.00
Delhi	27.47			27.47	65.98	62.37	-3.61	89.83	0.03
UP	133.67	6.71	8.40	148.78	99.82	97.74	-2.08	246.52	26.26
Uttarakhand		15.99		15.99	14.65	15.19	0.54	31.18	3.20
HP		14.69		14.69	8.12	8.51	0.38	23.19	0.05
J & K		13.21	0.00	13.21	16.20	16.20	0.00	29.41	1.70
Chandigarh				0.00	4.82	5.32	0.50	5.32	0.00
<b>Total</b>	<b>348.99</b>	<b>60.42</b>	<b>17.94</b>	<b>427.35</b>	<b>418.87</b>	<b>407.38</b>	<b>-11.49</b>	<b>834.73</b>	<b>31.57</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	6164	0	115	911	5041	0	118	1103	25.01
Haryana	4147	0	-1255	292	4880	0	60	247	4.61
Rajasthan	6253	0	-168	313	6431	0	-98	147	6.90
Delhi	3599	0	-307	-384	3473	0	-246	-437	-7.77
UP	9918	1230	-368	107	10365	840	-70	634	8.48
Uttarakhand	1344	225	3	219	1280	50	68	158	4.20
HP	949	4	-82	-674	786	0	-28	-553	-15.07
J&K	1294	100	-79	-244	982	0	-80	-249	-5.95
Chandigarh	305	0	64	0	160	0	15	0	0.27
<b>Total</b>	<b>33972</b>	<b>1559</b>	<b>-2077</b>	<b>540</b>	<b>33397</b>	<b>890</b>	<b>-261</b>	<b>1050</b>	<b>20.68</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	1406	1520	1552	34.23	1426	33.57	0.66
	Rihand I STPS	1000	915	947	990	21.85	910	21.86	-0.02
	Rihand II STPS	1000	965	1001	1043	23.16	965	23.07	0.09
	Rihand III STPS	500	476	486	507	11.45	477	11.39	0.06
	Dadri I STPS	840	807	646	776	17.67	736	17.62	0.05
	Dadri II STPS	980	969	895	1013	21.09	879	22.09	-1.00
	Unchahar I TPS	420	390	428	438	9.29	387	9.27	0.03
	Unchahar II TPS	420	400	437	438	9.48	395	9.38	0.10
	Unchahar III TPS	210	200	217	216	4.66	194	4.63	0.02
	ISTPP (Jhajjar)	1500	940	665	662	14.62	609	14.66	-0.04
	Dadri GPS	830	797	308	363	8.18	341	8.28	-0.10
	Anta GPS	419	389	0	0	0.00	0	0.00	0.00
	Auraiva GPS	663	622	273	280	6.49	270	6.56	-0.07
	<b>Sub Total (A)</b>	<b>10782</b>	<b>9277</b>	<b>7823</b>	<b>8278</b>	<b>182.16</b>	<b>7590</b>	<b>182.39</b>	<b>-0.23</b>
	B. NPC	NAPS	440	307	335	342	7.22	301	7.37
RAPS- B		440	404	442	449	9.58	399	9.70	-0.12
RAPS- C		440	430	463	469	9.99	416	10.32	-0.33
<b>Sub Total (B)</b>		<b>1320</b>	<b>1141</b>	<b>1240</b>	<b>1260</b>	<b>26.78</b>	<b>1116</b>	<b>27.38</b>	<b>-0.60</b>
C. NHPC	Chamera I HPS	540	540	540	0	9.69	404	9.60	0.09
	Chamera II HPS	300	303	304	20	4.64	193	4.76	-0.12
	Chamera III HPS	231	231	237	0	3.04	127	3.20	-0.16
	Bairasuil HPS	180	182	182	20	2.23	93	2.23	0.00
	Salal-HPS	690	441	635	509	10.14	423	10.59	-0.45
	Tanakpur-HPS	94	35	53	37	0.83	35	0.85	-0.01
	Uri-HPS	480	480	480	479	11.57	482	11.58	-0.01
	Dhauliganga-HPS	280	280	270	0	2.21	92	1.95	0.26
	Dulhasti-HPS	390	387	407	378	9.33	389	9.19	0.15
	Sewa-II HPS	120	101	122	39	2.21	92	2.16	0.05
	<b>Sub Total (C)</b>	<b>3305</b>	<b>2980</b>	<b>3230</b>	<b>1482</b>	<b>55.90</b>	<b>2329</b>	<b>56.10</b>	<b>-0.20</b>
	D.NJPC	Nathpa Jhakri	1500	1605	1591	533	26.68	1112	27.06
<b>Sub Total (D)</b>		<b>1500</b>	<b>1605</b>	<b>1591</b>	<b>533</b>	<b>26.68</b>	<b>1112</b>	<b>27.06</b>	<b>-0.38</b>
E. THDC	Tehri HPS	1000	645	327	155	6.44	268	6.42	0.02
	Koteshwar HPS	400	261	263	0	2.72	114	2.70	0.02
	<b>Sub Total (E)</b>	<b>1400</b>	<b>906</b>	<b>590</b>	<b>155</b>	<b>9.17</b>	<b>382</b>	<b>9.12</b>	<b>0.05</b>
F. BBMB	Bhakra HPS	1480	785	1097	662	19.22	801	18.84	0.38
	Dehar HPS	990	381	825	140	9.24	385	9.16	0.09
	Pong HPS	396	130	300	0	3.42	143	0.25	3.17
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1297</b>	<b>2222</b>	<b>802</b>	<b>31.88</b>	<b>1328</b>	<b>28.25</b>	<b>3.64</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	89	86	1.57	66	1.60	-0.02
	KWHEP HPS(IPP)	1000	0	600	400	15.26	636	15.61	-0.34
	Malana Stg-II HPS	100	0	45	70	0.75	31	0.68	0.07
	Shree Cement TPS	300	0	247	262	5.95	248	5.96	0.00
	Budhil HPS(IPP)	70	0	69	34	0.63	26	0.83	-0.20
	<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1050</b>	<b>852</b>	<b>24.17</b>	<b>1007</b>	<b>24.67</b>	<b>-0.50</b>
<b>H. Total Regional Entities (A-G)</b>	<b>22836</b>	<b>17206</b>	<b>17746</b>	<b>13362</b>	<b>356.74</b>	<b>14864</b>	<b>354.98</b>	<b>1.77</b>	

I. State Entities	Station	Effective Installed Capacity (MW)	Peak MW	Off Peak MW	Energy(MU)	Average(Sent out MW)
<b>Punjab</b>	Guru Gobind Singh TPS (Ropar)	1260	850	950	21.61	900
	Guru Nanak Dev TPS(Bhatinda)	440	295	200	6.13	255
	Guru Hargobind Singh TPS(L.mbt)	920	742	774	18.46	769
	Thermal (Total)	2620	1887	1924	46.20	1925
	Total Hydro	1148	378	348	9.23	384
	<b>Total Punjab</b>	<b>3768</b>	<b>2265</b>	<b>2272</b>	<b>55.42</b>	<b>2309</b>
<b>Haryana</b>	Panipat TPS	1367	899	905	21.86	911
	DCRTPP (Yamuna nagar)	600	260	253	6.05	252
	Faridabad GPS (NTPC)	432	188	161	4.31	180
	RGTPP (kheadar) (IPP)	1200	445	426	10.79	449
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	352	352	9.16	382
	Thermal (Total)	4944	2144	2097	52.17	2174
	Total Hydro	62	23	23	0.59	25
	<b>Total Haryana</b>	<b>5006</b>	<b>2167</b>	<b>2120</b>	<b>52.76</b>	<b>2198</b>
	<b>Rajasthan</b>	kota TPS	1240	1103	1185	27.15
suratgarh TPS		1500	941	1129	24.31	1013
Chabra TPS		500	210	231	5.35	223
Dholpur GPS		330	123	139	3.05	127
Ramgarh GPS		111	140	145	3.46	144
RAPS A (NPC)		300	180	180	4.31	180
Barsingsar (NLC)		250	106	110	2.44	102
Giral LTPS		250	0	0	0.00	0
Rajwest LTPS (IPP)		1080	869	834	19.42	809
VSLP LTPS (IPP)		135	0	0	0.00	0
Thermal (Total)		5696	3672	3953	89.49	3729
Total Hydro		550	0	0	0.00	0
Wind power		2191	22	533	7.42	309
Biomass		91	24	24	0.57	24
Solar		201	0	0	1.55	64
Renewable/Others (Total)		2483	46	557	9.54	398
<b>Total Rajasthan</b>		<b>8729</b>	<b>3718</b>	<b>4510</b>	<b>99.03</b>	<b>4126</b>
<b>UP</b>	Anpara TPS	1630	1377	1384	32.90	1371
	Obra TPS	1288	377	360	8.90	371
	Paricha TPS	1140	795	769	18.60	775
	Panki TPS	210	153	144	3.50	146
	Harduaganj TPS	665	356	406	9.30	388
	Tanda TPS (NTPC)	440	397	401	9.76	407
	Roza TPS (IPP)	1200	936	1008	24.19	1008
	Anpara-C (IPP)	1200	804	545	17.14	714
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	327	405	9.38	391
	Thermal (Total)	8223	5522	5422	133.67	5570
	Vishnuparyag HPS (IPP)	400	198	164	3.95	164
	Other Hydro	527	139	97	2.77	115
	Cogeneration	981	350	350	8.40	350
	<b>Total UP</b>	<b>10131</b>	<b>6209</b>	<b>6033</b>	<b>148.78</b>	<b>6035</b>
<b>Uttarakhand</b>	Total Hydro	1303	623	660	15.99	666
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>623</b>	<b>660</b>	<b>15.99</b>	<b>666</b>
<b>Delhi</b>	Rajghat TPS	135	108	101	2.35	98
	Delhi Gas Turbine	282	97	69	2.40	100
	Pragati Gas Turbine	330	282	297	5.70	238
	Rithala GPS	95	0	0	0.00	0
	Bawana GPS	686	222	219	5.71	238
	Badarpur TPS (NTPC)	705	590	400	11.31	471
	Thermal (Total)	2232	1299	1086	27.47	1144
	<b>Total Delhi</b>	<b>2232</b>	<b>1299</b>	<b>1086</b>	<b>27.47</b>	<b>1144</b>
<b>HP</b>	Baspa HPS (IPP)	330	71	182	3.28	137
	Malana HPS (IPP)	86	20	75	0.79	33
	Other Hydro	589	406	499	10.62	443
	<b>Total HP</b>	<b>1005</b>	<b>497</b>	<b>756</b>	<b>14.69</b>	<b>612</b>
<b>J &amp; K</b>	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>17311</b>	<b>17991</b>	<b>427.35</b>	<b>17642</b>
<b>J. Net Inter Regional Exchange</b> [Import (+ve)/Export (-ve)]			<b>3160</b>	<b>3646</b>	<b>73.66</b>	<b>3069</b>
<b>Total Regional Availability(Gross)</b>		<b>55966</b>	<b>38217</b>	<b>34999</b>	<b>857.76</b>	<b>35575</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	8367	3528	141.22	5884
State Control Area Hydro	5368	2193	2438	60.42	2353
<b>Total Regional Hydro</b>	<b>15731</b>	<b>10560</b>	<b>5966</b>	<b>201.63</b>	<b>8237</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	50	50	100	0.95	0.48	0.47
Gwalior-Agra (D/C)	819	1117	1248	0	18.84	0.00	18.84
Zerda-Kankroli	7	-144	7	299	0.00	3.72	-3.72
Zerda-Bhinmal	0	-132	21	235	0.00	1.41	-1.41
Malanpur-Auraiya	0	0	0	0	0.00	0.00	0.00
Badod-Kota/Morak	-98	-105	0	129	0.00	2.28	-2.28
Mundra-Mohindergarh(HVDC)	1192	1187	1432	0	29.55	0.00	29.55
<b>Sub Total WR</b>	<b>1820</b>	<b>1973</b>			<b>49.34</b>	<b>7.88</b>	<b>41.46</b>
Pusauli Bypass	100	50	50	100	0.69	0.84	-0.15
MZP- GKP (D/C)	424	648	808	0	14.44	0.00	14.44
Patna-Balia(D/C)	434	533	583	0	11.69	0.00	11.69
B'Sharif-Balia (D/C)	166	211	326	0	4.47	0.00	4.47
Pusauli-Balia	-16	-34	0	114	0.00	0.96	-0.96
Gaya-Fatehpur (765 Kv)	102	161	186	283	0.00	0.07	-0.07
Pusauli-Sahupuri	166	144	170	0	3.85	0.00	3.85
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>1340</b>	<b>1673</b>			<b>35.14</b>	<b>2.93</b>	<b>32.21</b>
<b>Total IR Exch</b>	<b>3160</b>	<b>3646</b>			<b>84.48</b>	<b>10.81</b>	<b>73.66</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
30.10	1.18	31.28	-1.28	4.52	4.59	-9.65	-0.20	0.20

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
34.38	40.91	75.30	32.21	41.46	73.66	-2.18	0.54	-1.63

**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	0.20	1.30	94.60	93.50	43.70	5.20

<----- Frequency (Hz) ----->				Average Frequency	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX (Hz)	MIN (Hz)
50.44	6.05	49.44	15.08	49.99	0.16	0.12	50.37	49.73

**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	409	19:18	400	09:02	0.0	0.0	0.0	0.0
Gorakhpur	400	429	18:16	406	09:43	0.0	0.0	20.1	0.0
Bareilly	400	0	00:00	9999	00:00	0.0	0.0	0.0	0.0
Kanpur	400	417	19:17	400	16:37	0.0	0.0	0.0	0.0
Dadri	400	419	06:06	398	15:06	0.0	0.0	0.0	0.0
Ballabgarh	400	424	06:03	403	15:08	0.0	0.0	11.8	0.0
Bawana	400	421	06:02	404	10:21	0.0	0.0	0.6	0.0
Bassi	400	426	03:57	406	09:12	0.0	0.0	20.5	0.0
Hissar	400	413	06:04	395	09:14	0.0	0.0	0.0	0.0
Moga	400	418	03:58	400	10:28	0.0	0.0	0.0	0.0
Abdullapur	400	420	06:04	283	11:39	0.1	0.1	0.0	0.0
Nalagarh	400	421	04:05	401	10:28	0.0	0.0	0.7	0.0
Kishenpur	400	413	03:10	399	07:11	0.0	0.0	0.0	0.0
Wagoora	400	413	02:58	390	07:13	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	19:17	730	16:38	0.0	0.0	100.0	100.0
Balia	765	770	20:08	701	10:21	0.0	0.0	100.0	100.0
Moga	765	781	03:10	749	10:28	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 (m <sup>3</sup> /s)	Usage (m <sup>3</sup> /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 14.05.2013 :**

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 : 14.05.2013

पारी प्रभाती अश्विन्ता / SHIFT CHARGE ENGINEER