

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 14.06.2013  
Date of Reporting : 15.06.2013

### 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
35709	1140	36849	50.03	34555	600	35155	50.28	854.3	23.50

\* 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	23.00	11.20		34.19	119.52	118.42	-1.10	152.61	0.00
Haryana	30.72	0.55		31.27	96.54	95.93	-0.61	127.20	0.00
Rajasthan	75.02	0.00	4.13	79.14	65.01	61.22	-3.79	140.36	0.00
Delhi	23.38			23.38	77.69	74.20	-3.49	97.58	0.08
UP	110.86	13.89	5.40	130.15	120.70	117.77	-2.93	247.92	21.19
Uttarakhand		20.18		20.18	16.04	13.64	-2.40	33.81	0.00
HP		23.22		23.22	2.52	0.91	-1.61	24.13	0.53
J & K		13.40	0.00	13.40	15.38	12.08	-3.30	25.49	1.70
Chandigarh				0.00	6.02	5.24	-0.79	5.24	0.00
<b>Total</b>	<b>262.98</b>	<b>82.45</b>	<b>9.53</b>	<b>354.95</b>	<b>519.42</b>	<b>499.40</b>	<b>-20.02</b>	<b>854.35</b>	<b>23.50</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	STO/PIX transaction	Demand Met	Shortage	UI	STO/PIX transaction	STO/PIX transaction
Punjab	7177	0	-48	1934	5274	0	-4	2017	48.29
Haryana	5519	0	-63	711	5035	0	-10	745	16.97
Rajasthan	5449	0	-234	497	6042	0	-96	373	9.67
Delhi	4066	0	-17	214	3718	0	-213	78	6.03
UP	9613	1040	-560	110	11347	600	-91	1359	17.12
Uttarakhand	1554	0	76	144	1337	0	-142	97	2.67
HP	962	0	-92	-993	868	0	-54	-1093	-23.47
J&K	1121	100	-158	-268	768	0	-292	-417	-8.64
Chandigarh	249	0	-18	0	167	0	-60	0	0.10
<b>Total</b>	<b>35709</b>	<b>1140</b>	<b>-1114</b>	<b>2349</b>	<b>34555</b>	<b>600</b>	<b>-962</b>	<b>3160</b>	<b>68.73</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	1930	2070	1735	43.51	1813	43.67	-0.16
	Rihand I STPS	1000	915	929	880	18.78	783	19.02	-0.24
	Rihand II STPS	1000	970	948	822	19.47	811	19.62	-0.14
	Rihand III STPS	500	470	506	362	9.57	399	9.88	-0.31
	Dadri I STPS	840	810	509	615	12.55	523	12.98	-0.43
	Dadri II STPS	980	975	746	722	18.05	752	18.43	-0.38
	Unchahar I TPS	420	402	391	308	7.28	304	7.68	-0.39
	Unchahar II TPS	420	201	174	150	3.52	146	3.65	-0.13
	Unchahar III TPS	210	200	172	153	3.51	146	3.61	-0.10
	ISTPP (Jhajjar)	1500	940	625	602	13.51	563	14.75	-1.24
	Dadri GPS	830	800	566	340	10.33	430	10.96	-0.63
	Anta GPS	419	397	0	0	0.00	0	0.00	0.00
	Auraiya GPS	663	623	149	153	3.52	147	3.61	-0.09
	<b>Sub Total (A)</b>	<b>10782</b>	<b>9633</b>	<b>7785</b>	<b>6842</b>	<b>163.59</b>	<b>6816</b>	<b>167.85</b>	<b>-4.26</b>
B. NPC	NAAPS	440	290	330	334	7.01	292	6.96	0.05
	RAPS- B	440	390	429	432	9.28	387	9.36	-0.08
	RAPS- C	440	430	447	461	9.73	405	10.32	-0.60
	<b>Sub Total (B)</b>	<b>1320</b>	<b>1110</b>	<b>1206</b>	<b>1227</b>	<b>26.02</b>	<b>1084</b>	<b>26.64</b>	<b>-0.62</b>
C. NHPC	Chamera I HPS	540	540	540	540	13.03	543	12.96	0.07
	Chamera II HPS	300	310	311	310	7.40	308	7.42	-0.02
	Chamera III HPS	231	231	239	233	5.34	223	5.54	-0.20
	Bairasul HPS	180	179	180	182	3.82	159	3.79	0.03
	Salal-HPS	690	651	649	656	15.60	650	15.63	-0.03
	Tanakpur-HPS	94	86	84	88	2.03	84	2.07	-0.04
	Uri-HPS	480	475	476	470	11.24	468	11.22	0.02
	Dhauliganga-HPS	280	280	282	278	6.72	280	6.76	-0.04
	Dulhasi-HPS	390	265	272	272	6.35	265	6.36	-0.01
	Sewa-II HPS	120	119	122	77	2.46	102	2.54	-0.08
	<b>Sub Total (C)</b>	<b>3305</b>	<b>3136</b>	<b>3155</b>	<b>3106</b>	<b>73.98</b>	<b>3082</b>	<b>74.28</b>	<b>-0.30</b>
D. NJPC	Nathpa Jhakri	1500	1605	1605	1605	38.27	1595	38.50	-0.23
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>1605</b>	<b>1605</b>	<b>38.27</b>	<b>1595</b>	<b>38.50</b>	<b>-0.23</b>
E. THDC	Tehri HPS	1000	549	541	529	12.56	523	12.50	0.06
	Koteswar HPS	400	289	289	172	5.90	246	6.10	-0.20
	<b>Sub Total (E)</b>	<b>1400</b>	<b>838</b>	<b>830</b>	<b>701</b>	<b>18.46</b>	<b>769</b>	<b>18.60</b>	<b>-0.14</b>
F. BBMB	Bhakra HPS	1480	1235	1260	1259	30.26	1261	29.65	0.61
	Dehar HPS	990	609	825	560	14.98	624	14.62	0.37
	Pong HPS	396	47	183	0	1.21	50	1.14	0.07
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1892</b>	<b>2268</b>	<b>1819</b>	<b>46.45</b>	<b>1935</b>	<b>45.40</b>	<b>1.05</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	230	232	5.42	226	5.27	0.15
	KWHEP HPS(IPP)	1000	0	1199	1194	28.12	1172	28.51	-0.39
	Malana Stg-II HPS	100	0	106	110	2.48	103	2.29	0.19
	Shree Cement TPS	300	0	264	229	5.97	249	6.16	-0.19
	Budhil HPS(IPP)	70	0	35	34	0.82	34	0.72	0.10
	<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1834</b>	<b>1799</b>	<b>42.81</b>	<b>1784</b>	<b>42.95</b>	<b>-0.13</b>
<b>H. Total Regional Entities (A-G)</b>	<b>22836</b>	<b>18214</b>	<b>18683</b>	<b>17099</b>	<b>409.57</b>	<b>17065</b>	<b>414.21</b>	<b>-4.65</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	630	348	10.74	448	
	Guru Nanak Dev TPS(Bhatinda)	440	102	105	2.23	93	
	Guru Hargobind Singh TPS(L.mbt)	920	646	324	10.02	418	
	Goindwal(GVK)		0	0	0.00	0	
	Thermal (Total)	2620	1378	777	23.00	958	
	Total Hydro	1148	378	412	11.20	467	
	<b>Total Punjab</b>	<b>3768</b>	<b>1756</b>	<b>1189</b>	<b>34.19</b>	<b>1425</b>	
Haryana	Panipat TPS	1367	365	382	9.04	377	
	DCRTPP (Yamuna nagar)	600	265	256	6.08	253	
	Faridabad GPS (NTPC)	432	190	168	4.31	179	
	RGTPP (khedar) (IPP)	1200	479	465	11.30	471	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	1320	0	0	0.00	0	
	Thermal (Total)	4944	1299	1271	30.72	1280	
	Total Hydro	62	22	21	0.55	23	
		<b>Total Haryana</b>	<b>5006</b>	<b>1321</b>	<b>1292</b>	<b>31.27</b>	<b>1303</b>
	Rajasthan	kota TPS	1240	931	953	21.97	915
suratgarh TPS		1500	737	670	16.85	702	
Chabra TPS		500	195	225	4.96	207	
Dholpur GPS		330	110	111	2.69	112	
Ramgarh GPS		111	64	68	1.54	64	
RAPS A (NPC)		300	189	189	4.34	181	
Barsingar (NLC)		250	193	205	4.60	192	
Giral LTPS		250	134	117	2.62	109	
Rajwest LTPS (IPP)		1080	594	791	15.45	644	
VSLP LTPS (IPP)		135	0	0	0.00	0	
Kalisindh Thermal		600	0	0	0.00	0	
Kawai(Adani)		660	0	0	0.00	0	
Thermal (Total)		6956	3147	3329	75.02	3126	
Total Hydro		550	0	0	0.00	0	
Wind power		2191	113	31	1.92	80	
Biomass		91	27	27	0.64	27	
Solar		201	0	0	1.57	66	
		Renewable/Others (Total)	2483	140	58	4.13	172
	<b>Total Rajasthan</b>	<b>9989</b>	<b>3287</b>	<b>3387</b>	<b>79.14</b>	<b>3298</b>	
UP	Anpara TPS	1630	1351	1296	28.30	1179	
	Obra TPS	1288	500	519	11.50	479	
	Paricha TPS	1140	884	664	14.20	592	
	Panki TPS	210	80	75	1.60	67	
	Harduaganj TPS	665	440	436	9.50	396	
	Tanda TPS (NTPC)	440	294	298	7.33	306	
	Roza TPS (IPP)	1200	851	824	20.91	871	
	Anpara-C (IPP)	1200	515	820	11.65	485	
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	252	252	5.87	245	
	Thermal (Total)	8223	5167	5184	110.86	4619	
	Vishnuparyag HPS (IPP)	400	436	436	10.45	435	
	Other Hydro	527	146	123	3.44	143	
	Cogeneration	981	225	225	5.40	225	
		<b>Total UP</b>	<b>10131</b>	<b>5974</b>	<b>5968</b>	<b>130.15</b>	<b>4988</b>
	Uttarakhand	Total Hydro	1303	829	837	20.18	841
<b>Total Uttarakhand</b>		<b>1303</b>	<b>829</b>	<b>837</b>	<b>20.18</b>	<b>841</b>	
Delhi	Rajghat TPS	135	97	97	2.33	97	
	Delhi Gas Turbine	282	79	157	3.66	153	
	Pragati Gas Turbine	330	259	263	6.41	267	
	Rithala GPS	95	0	0	0.00	0	
	Bawana GPS	686	0	0	0.00	0	
	Badarpur TPS (NTPC)	705	505	510	10.98	458	
	Thermal (Total)	2232	940	1027	23.38	974	
		<b>Total Delhi</b>	<b>2232</b>	<b>940</b>	<b>1027</b>	<b>23.38</b>	<b>974</b>
HP	Baspa HPS (IPP)	330	306	306	7.49	312	
	Malana HPS (IPP)	86	113	111	2.40	100	
	Other Hydro	589	572	544	13.34	556	
		<b>Total HP</b>	<b>1005</b>	<b>991</b>	<b>961</b>	<b>23.22</b>	<b>968</b>
J & K	Baglihar HPS (IPP)	450	436	436	10.45	435	
	Other Hydro	323	110	128	2.95	123	
	Gas/Diesel/Others	183	0	0	0.00	0	
		<b>Total J &amp; K</b>	<b>956</b>	<b>546</b>	<b>564</b>	<b>13.40</b>	<b>559</b>
<b>Total State Control Area Generation</b>		<b>34390</b>	<b>15644</b>	<b>15225</b>	<b>354.95</b>	<b>14354</b>	
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>4597</b>	<b>4251</b>	<b>112.39</b>	<b>4683</b>	
<b>Total Regional Availability(Gross)</b>		<b>57226</b>	<b>38924</b>	<b>36575</b>	<b>876.90</b>	<b>36102</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	9393	8767	213.17	8882
State Control Area Hydro	5368	2912	2918	82.45	3000
<b>Total Regional Hydro</b>	<b>15731</b>	<b>12305</b>	<b>11685</b>	<b>295.61</b>	<b>11882</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	400	400	0	5.52	0.00	5.52
Gwalior-Agra (D/C)	1490	1201	1813	0	32.73	0.00	32.73
Zerda-Kankroli	114	-71	148	183	0.00	1.30	-1.30
Zerda-Bhinmal	151	-44	187	217	0.00	0.47	-0.47
Malanpur-Auraiya	-32	-23	0	41	0.00	0.57	-0.57
Badod-Kota/Morak	69	28	105	40	0.80	0.00	0.80
Mundra-Mohindergarh(HVDC)	1450	1230	1450	0	32.22	0.00	32.22
<b>Sub Total WR</b>	<b>3342</b>	<b>2721</b>			<b>71.26</b>	<b>2.34</b>	<b>68.92</b>
Pusauli Bypass	-295	100	100	334	1.14	0.00	1.14
MZP- GKP (D/C)	436	432	756	0	13.16	0.00	13.16
Patna-Balia(D/C)	454	478	624	0	12.57	0.00	12.57
B Sharif-Balia (D/C)	205	163	338	0	5.72	0.00	5.72
Pusauli-Balia	15	77	27	0	0.73	1.78	-1.06
Gaya-Fatehpur (765 Kv)	77	20	252	8	2.98	0.00	2.98
Pusauli-Sahupuri	133	176	176	0	3.56	0.00	3.56
Knasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-38	-40	0	45	0.00	0.90	-0.90
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	268	124	396	0	6.28	0.00	6.28
<b>Sub Total ER</b>	<b>1255</b>	<b>1530</b>			<b>46.14</b>	<b>2.68</b>	<b>43.47</b>
<b>Total IR Exch</b>	<b>4597</b>	<b>4251</b>			<b>117.41</b>	<b>5.02</b>	<b>112.39</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
35.32	2.15	37.47	6.12	22.48	4.19	-2.40	0.59	-0.58

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
48.36	72.81	121.18	43.47	68.92	112.39	-4.90	-3.89	-8.79

**VI. Frequency Profile**

% of Time Frequency									
<48.80	<49.0	<49.20	<49.50	<49.7	49.5 - 50.2	49.7-49.8	49.7 - 50.2	> 50.00	> 50.2
0.00	0.00	0.00	0.00	0.30	78.40	0.30	78.10	76.80	21.60

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					
50.56	6.04	49.63	19.56	50.10	0.26	0.13	50.52	49.87

**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	415	19:01	402	22:24	0.0	0.0	0.0	0.0
Gorakhpur	400	429	17:36	410	01:32	0.0	0.0	39.5	0.0
Bareilly	400	417	06:06	401	00:18	0.0	0.0	0.0	0.0
Kanpur	400	421	19:03	401	10:56	0.0	0.0	0.2	0.0
Dadri	400	416	19:03	395	10:54	0.0	0.0	0.0	0.0
Ballabgarh	400	423	04:05	400	10:54	0.0	0.0	4.8	0.0
Bawana	400	415	04:06	400	10:41	0.0	0.0	0.0	0.0
Bassi	400	432	04:03	401	10:56	0.0	0.0	26.8	1.0
Hissar	400	410	04:06	393	10:57	0.0	0.0	0.0	0.0
Moga	400	412	04:06	396	09:24	0.0	0.0	0.0	0.0
Abdullapur	400	412	04:07	400	10:58	0.0	0.0	0.0	0.0
Nalagarh	400	414	04:08	399	10:35	0.0	0.0	0.0	0.0
Kishenpur	400	413	04:08	402	09:23	0.0	0.0	0.0	0.0
Wagoora	400	417	17:02	399	21:25	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	788	18:03	749	12:37	0.0	0.0	0.0	0.0
Balia	765	769	18:01	731	00:19	0.0	35.4	0.0	0.0
Moga	765	774	04:08	744	09:24	0.0	0.0	0.0	0.0
Agra	765	805	04:06	764	10:57	0.0	0.0	2.7	0.0
Bhiwani	765	784	04:06	752	10:58	0.0	0.0	0.0	0.0
Unnao	765	762	17:12	731	00:20	0.0	28.2	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	484.25	569.03	467.45	230.40	1702.52	1073.46
Pong	426.72	384.05	400.73	237.89	398.20	179.94	588.03	127.68
Tehri	829.79	740.04	747.50	34.10	818.65	982.26	378.73	426.00
Koteshwar	612.50	598.50	608.30	4.21	NA	NA	426.00	395.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	515.48	352.97
Rihand	268.22	252.98	255.24	85.80	NA	NA	NA	NA
RPS	352.80	343.81	NA	NA	NA	NA	NA	NA
Jawahar Sagar	298.70	295.78	NA	NA	NA	NA	NA	NA
RSD	527.91	487.91	511.96	NA	500.49	NA	561.98	290.79

\* NA: Not Available

**X. System Constraints:**

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

**XII. Weather Conditions For 14.06.2013 :**

1. Hot & Humid weather in NR.

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

**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 : 14.06.2013

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER