

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 08.07.2014  
Date of Reporting : 09.07.2014

### 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
45130	2511	47641	49.82	44579	2141	46720	49.79	1062.8	65.14

\* 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	72.60	23.61		96.20	123.95	123.66	-0.29	219.86	4.34
Haryana	62.50	0.60		63.11	114.08	112.54	-1.54	175.64	0.18
Rajasthan	117.83	0.00	27.75	145.58	49.23	53.13	3.90	198.71	4.25
Delhi	27.19			27.19	83.93	83.33	-0.60	110.52	0.00
UP	125.20	14.50	1.20	140.90	110.54	114.57	4.03	255.47	53.55
Uttarakhand		22.46		22.46	11.85	13.68	1.84	36.14	1.12
HP		25.15		25.15	0.79	1.38	0.59	26.54	0.00
J & K		14.83	0.00	14.83	16.49	18.58	2.09	33.41	1.70
Chandigarh				0.00	5.51	6.50	0.99	6.50	0.00
<b>Total</b>	<b>405.32</b>	<b>101.15</b>	<b>28.95</b>	<b>535.42</b>	<b>516.36</b>	<b>527.36</b>	<b>11.00</b>	<b>1062.78</b>	<b>65.14</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				# Max(hourly) Demand Met of Day (MW)
	Demand Met	Shortage	UI	STOA/PX transaction	Demand Met	Shortage	UI	STOA/PX transaction	
Punjab	9533	280	127	1569	9430	0	-107	1861	9673
Haryana	7628	36	163	1452	7473	3	-325	1663	8025
Rajasthan	7908	50	-86	-607	8093	38	364	-606	9137
Delhi	4721	0	-25	283	4362	0	-59	303	5411
UP	10767	1985	188	279	10983	2100	18	741	11209
Uttarakhand	1591	60	151	-13	1491	0	153	-25	1693
HP	1038	0	-51	-1214	973	0	19	-1410	1221
J&K	1650	100	105	-250	1531	0	200	-373	1756
Chandigarh	295	0	53	0	244	0	46	0	341
<b>Total</b>	<b>45130</b>	<b>2511</b>	<b>626</b>	<b>1499</b>	<b>44579</b>	<b>2141</b>	<b>309</b>	<b>2153</b>	<b>46202</b>

\* STOA figures are at sellers boundary & PX figures are at regional boundary. # figures may not be at simultaneous hour.

Diversity is 1.05

### III. Regional Entities :

A. NTPC	Station/ Constituent	Inst. Capacity (Effective) MW	Declared Capacity(MW)	Peak MW	Off Peak MW	Energy	Average	Schedule	UI
				(Gross)	(Gross)	(Net MU)	Sentout(MW)	Net MU	Net MU
	Singrauli STPS	2000	1400	1568	1544	32.67	1361	33.60	-0.93
	Rihand I STPS	1000	844	901	931	20.55	856	20.26	0.29
	Rihand II STPS	1000	773	1002	1039	18.69	779	18.54	0.15
	Rihand III STPS	1000	579	923	500	13.72	572	13.90	-0.17
	Dadri I STPS	840	813	865	875	18.62	776	19.13	-0.51
	Dadri II STPS	980	966	1013	990	22.19	925	23.06	-0.87
	Unchahar I TPS	420	395	435	427	9.48	395	9.44	0.03
	Unchahar II TPS	420	395	430	437	9.44	393	9.41	0.03
	Unchahar III TPS	210	198	217	218	4.72	197	4.69	0.03
	ISTPP (Jhajjar)	1500	1410	968	961	22.04	918	22.44	-0.40
	Dadri GPS	830	601	173	178	4.07	170	4.63	-0.55
	Anta GPS	419	377	247	252	5.90	246	5.73	0.18
	Auraiya GPS	663	630	149	151	3.41	142	3.44	-0.03
	Dadri Solar	5	1	0	0	0.00	0	0.03	-0.03
	Unchahar Solar	10	3	0	0	0.00	0	0.07	-0.07
	<b>Sub Total (A)</b>	<b>11297</b>	<b>9384</b>	<b>8891</b>	<b>8503</b>	<b>186</b>	<b>7729</b>	<b>188</b>	<b>-3</b>
B. NPC	NAPS	440	269	303	311	6.46	269	6.46	0.00
	RAPS- B	440	393	432	440	9.40	392	9.43	-0.03
	RAPS- C	440	205	220	220	4.73	197	4.92	-0.19
	<b>Sub Total (B)</b>	<b>1320</b>	<b>867</b>	<b>955</b>	<b>971</b>	<b>20.58</b>	<b>858</b>	<b>20.81</b>	<b>-0.23</b>
C. NHPC	Chamera I HPS	540	535	540	540	13.11	546	12.84	0.27
	Chamera II HPS	300	301	309	307	7.33	305	7.22	0.11
	Chamera III HPS	231	229	240	240	5.68	236	5.50	0.18
	Bairasui HPS	180	167	120	140	3.01	126	2.85	0.16
	Salal-HPS	690	655	678	675	16.06	669	15.71	0.35
	Tanakpur-HPS	94	79	85	58	1.93	80	1.89	0.04
	Uri-HPS	480	475	478	472	11.47	478	11.40	0.07
	Uri-II HPS	240	235	248	249	5.79	241	5.64	0.15
	Dhauliganga-HPS	280	138	139	139	3.32	138	3.32	0.01
	Dulhasti-HPS	390	258	272	272	6.42	267	6.19	0.23
	Sewa-II HPS	120	119	128	20	1.42	59	1.20	0.22
	Parbati 3	390	260	271	270	5.00	208	4.91	0.10
	<b>Sub Total ©</b>	<b>3935</b>	<b>3451</b>	<b>3507</b>	<b>3382</b>	<b>81</b>	<b>3356</b>	<b>79</b>	<b>2</b>
D.SJVNL	NJPC	1500	1605	1620	1617	38.61	1609	38.52	0.09
	Rampur HEP	275	280	290	290	6.91	288	6.72	0.19
	<b>Sub Total (D)</b>	<b>1775</b>	<b>1885</b>	<b>1910</b>	<b>1907</b>	<b>45.52</b>	<b>1897</b>	<b>45.24</b>	<b>0.28</b>
E. THDC	Tehri HPS	1000	588	589	0	5.27	220	5.10	0.17
	Koteshwar HPS	400	104	203	92	2.55	106	2.50	0.05
	<b>Sub Total (E)</b>	<b>1400</b>	<b>692</b>	<b>792</b>	<b>92</b>	<b>7.82</b>	<b>326</b>	<b>7.60</b>	<b>0.22</b>
F. BBMB	Bhakra HPS	1514	883	1236	930	21.96	915	21.19	0.78
	Dehar HPS	990	573	825	560	14.01	584	13.75	0.27
	Pong HPS	396	250	360	180	5.97	249	6.00	-0.03
	<b>Sub Total (F)</b>	<b>2900</b>	<b>1706</b>	<b>2421</b>	<b>1670</b>	<b>41.95</b>	<b>1748</b>	<b>40.93</b>	<b>1.01</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	231	230	5.45	227	5.30	0.15
	KWHEP HPS(IPP)	1000	0	1200	1200	28.65	1194	28.51	0.14
	Malana Stg-II HPS	100	0	113	113	2.67	111	2.51	0.15
	Shree Cement TPS	300	0	259	252	5.09	212	5.08	0.01
	Budhil HPS(IPP)	70	0	71	71	1.69	71	1.68	0.01
	<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1874</b>	<b>1866</b>	<b>43.55</b>	<b>1815</b>	<b>43.09</b>	<b>0.46</b>
<b>H. Total Regional Entities (A-G)</b>		<b>24289</b>	<b>17985</b>	<b>20350</b>	<b>18391</b>	<b>425.48</b>	<b>17728</b>	<b>424.69</b>	<b>0.78</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	1035	1229	25.73	1072
	Guru Nanak Dev TPS(Bhatinda)	440	330	330	7.08	295
	Guru Hargobind Singh TPS(L.mbt)	920	713	713	15.60	650
	Goindwal(GVK)		0	0	0.00	0
	Rajpura	700	1065	1065	24.18	1008
	Talwandi Saboo	660	0	0	0.00	0
	Thermal (Total)	<b>3980</b>	<b>3143</b>	<b>3337</b>	<b>72.60</b>	<b>3025</b>
	Total Hydro	1148	986	982	23.61	984
	<b>Total Punjab</b>	<b>5128</b>	<b>4129</b>	<b>4319</b>	<b>96.20</b>	<b>4008</b>
	Haryana	Panipat TPS	1367	218	222	5.25
DCRTPP (Yamuna nagar)		600	519	517	12.18	508
Faridabad GPS (NTPC)		432	0	0	0.00	0
RGTPP (khedar) (IPP)		1200	917	720	22.23	926
Magnum Diesel (IPP)		25	0	0	0.00	0
Jhajjar(CLP)		1320	743	1087	22.85	952
Thermal (Total)		4944	2397	2546	62.50	2604
Total Hydro		62	26	24	0.60	25
<b>Total Haryana</b>		<b>5006</b>	<b>2423</b>	<b>2570</b>	<b>63.11</b>	<b>2629</b>
Rajasthan		kota TPS	1240	1111	866	24.10
	suratgarh TPS	1500	840	1073	24.94	1039
	Chabra TPS	750	393	392	9.86	411
	Dholpur GPS	330	119	120	2.85	119
	Ramgarh GPS	271	160	153	3.46	144
	RAPS A (NPC)	300	0	0	0.00	0
	Barsingsar (NLC)	250	98	98	2.16	90
	Giral LTPS	250	77	28	1.65	69
	Rajwest LTPS (IPP)	1080	816	809	19.98	833
	VSLP LTPS (IPP)	135	0	0	0.00	0
	Kalisindh Thermal	600	0	0	0.00	0
	Kawai(Adani)	1320	1166	1176	28.83	1201
	Thermal (Total)	8026	4780	4715	118	4910
	Total Hydro	550	0	0	0.00	0
	Wind power	2798	1088	1114	26.65	1111
	Biomass	99	36	36	0.87	36
	Solar	730	0	0	0.23	9
	Renewable/Others (Total)	3627	1124	1150	27.75	1156
	<b>Total Rajasthan</b>	<b>12203</b>	<b>5904</b>	<b>5865</b>	<b>145.58</b>	<b>6066</b>
	UP	Anpara TPS	1630	777	772	18.10
Obra TPS		1288	337	484	10.90	454
Paricha TPS		1140	752	745	18.00	750
Panki TPS		210	144	144	3.40	142
Harduaganj TPS		665	403	387	9.20	383
Tanda TPS (NTPC)		440	274	285	7.00	292
Roza TPS (IPP)		1200	1098	1103	26.50	1104
Anpara-C (IPP)		1200	945	945	22.50	938
Bajaj Energy Pvt.Ltd(IPP) TPS		450	403	407	9.60	400
Thermal (Total)		8223	5133	5272	125.20	5217
Vishnuparyag HPS (IPP)		400	436	436	10.50	438
Other Hydro		527	173	166	4.00	167
Cogeneration		981	50	50	1.20	50
<b>Total UP</b>		<b>10131</b>	<b>5792</b>	<b>5924</b>	<b>140.90</b>	<b>5433</b>
Uttarakhand		Total Hydro	1303	904	864	22.46
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>904</b>	<b>864</b>	<b>22.46</b>	<b>936</b>
Delhi	Rajghat TPS	135	45	45	1.06	44
	Delhi Gas Turbine	282	169	176	4.19	174
	Pragati Gas Turbine	330	279	287	6.88	287
	Rithala GPS	95	0	0	0.00	0
	Bawana GPS	1370	283	292	6.47	269
	Badarpur TPS (NTPC)	705	283	323	8.60	358
	Thermal (Total)	2917	1059	1123	27.19	1133
	<b>Total Delhi</b>	<b>2917</b>	<b>1059</b>	<b>1123</b>	<b>27.19</b>	<b>1133</b>
HP	Baspa HPS (IPP)	300	331	331	7.84	326
	Malana HPS (IPP)	86	102	104	2.47	103
	Other Hydro	728	596	628	14.85	619
	<b>Total HP</b>	<b>1114</b>	<b>1029</b>	<b>1063</b>	<b>25.15</b>	<b>1048</b>
J & K	Baqilhar HPS (IPP)	450	442	442	10.61	442
	Other Hydro/IPP	436	163	175	4.22	176
	Gas/Diesel/Others	209	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>1094</b>	<b>605</b>	<b>617</b>	<b>14.83</b>	<b>618</b>
<b>Total State Control Area Generation</b>		<b>38896</b>	<b>21845</b>	<b>22345</b>	<b>535.42</b>	<b>21872</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>4801.42</b>	<b>5225.68</b>	<b>114.97</b>	<b>4790</b>
<b>Total Regional Availability(Gross)</b>		<b>63186</b>	<b>46996</b>	<b>45961</b>	<b>1075.87</b>	<b>44390</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	11302	10174	8594	212.60	8858
State Control Area Hydro	5589	3723	3716	101.15	3777
<b>Total Regional Hydro</b>	<b>16891</b>	<b>13897</b>	<b>12310</b>	<b>313.75</b>	<b>12636</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	-50	-250	50	300	0.08	4.06	-3.99
Gwalior-Agra (D/C)	1580	1985	2014	0	37.77	0.00	37.77
Zerda-Kankroli	-201	-112	0	296	0.00	4.44	-4.44
Zerda-Bhinmal	-201	-154	0	323	0.00	4.94	-4.94
Malanpur-Auraiya	-51	-30	0	84	0.00	1.06	-1.06
Badod-Kota/Morak	-34	-35	8	89	0.00	0.87	-0.87
Mundra-Mohindergarh(HVDC)	2099	2002	2105	0	47.68	0.00	47.68
Vindhychal - Rihand	506	498	506	0	10.43	0.00	10.43
<b>Sub Total WR</b>	<b>3648</b>	<b>3904</b>			<b>95.95</b>	<b>15.37</b>	<b>80.58</b>
Pusaui Bypass	400	400	400	0	9.67	0.00	9.67
MZP- GKP (D/C)	344	440	600	0	10.23	0.00	10.23
Patna-Balia(D/C)	101	132	319	0	3.35	0.00	3.35
B'Sharif-Balia (D/C)	161	228	329	0	5.27	0.00	5.27
Pusaui-Balia	-87	-68	0	96	0.00	1.44	-1.44
Gaya-Fatehpur (765 Kv)	0	0	0	0	0.00	0.00	0.00
Pusaui-Sahupuri	170	126	170	0	3.52	0.00	3.52
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-34	-36	0	43	0.00	-0.75	0.75
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	98	100	236	11	3.05	0.00	3.05
<b>Sub Total ER</b>	<b>1153</b>	<b>1322</b>			<b>35.08</b>	<b>0.69</b>	<b>34.39</b>
<b>Total IR Exch</b>	<b>4801</b>	<b>5226</b>			<b>131.03</b>	<b>16.06</b>	<b>114.97</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
23.51	3.75	27.27	22.54	6.90	-9.83	-7.68	0.00	0.00

Total IR Schedule (MU)			Total IR Actual (MU)			Net IR UI (MU)		
Through ER	Through WR incld Mndra	Total	Through ER	Through WR	Total	Through ER	Through WR	Total
39.98	70.20	110.18	34.39	80.58	114.97	-5.59	10.38	4.79

**VI. Frequency Profile <----- % of Time Frequency ----->**

<49.2	<49.7	<49.8	<49.9	<50.0	49.9-50.05	50.05-50.10	50.10-50.20	>50.20	>50.50
0.00	14.16	37.01	63.19	89.51	32.57	9.10	0.42	0.00	0.00

Frequency (Hz)				Average Frequency	Frequency Variation	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX (Hz)	MIN (Hz)
Freq	Time	Freq	Time	Hz	Index			
50.19	10.05	49.53	3.18	49.85	0.38	0.12	50.17	49.72

**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	408	13:00	400	01:18	0.0	0.0	0.0	0.0
Gorakhpur	400	410	05:02	395	15:09	0.0	0.0	0.0	0.0
Bareilly	400	411	06:01	394	22:11	0.0	0.0	0.0	0.0
Kanpur	400	413	06:01	395	22:07	0.0	0.0	0.0	0.0
Dadri	400	408	06:01	391	15:08	0.0	0.0	0.0	0.0
Ballabgarh	400	415	06:00	395	15:09	0.0	0.0	0.0	0.0
Bawana	400	411	06:00	395	15:09	0.0	0.0	0.0	0.0
Bassi	400	417	03:31	395	22:07	0.0	0.0	0.0	0.0
Hissar	400	404	08:00	387	22:07	0.0	0.7	0.0	0.0
Moga	400	404	08:00	393	13:39	0.0	0.0	0.0	0.0
Abdullapur	400	411	06:03	396	10:40	0.0	0.0	0.0	0.0
Nalagarh	400	407	02:01	393	13:41	0.0	0.0	0.0	0.0
Kishenpur	400	413	08:02	401	20:50	0.0	0.0	0.0	0.0
Wagoora	400	409	08:01	389	20:48	0.0	0.9	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	765	08:01	728	22:07	0.0	16.3	0.0	0.0
Balia	765	764	08:02	733	14:23	0.0	14.0	0.0	0.0
Moga	765	783	08:00	757	22:04	0.0	0.0	0.0	0.0
Agra	765	781	06:01	741	22:07	0.0	0.0	0.0	0.0
Bhiwani	765	785	06:01	751	22:07	0.0	0.0	0.0	0.0
Unnao	765	758	05:04	729	22:04	0.0	29.5	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	487.48	652.97	491.45	778.28	1057.52	746.49
Pong	426.72	384.05	400.80	237.89	404.34	328.16	215.09	376.70
Tehri	829.79	740.04	748.65	42.00	NA	NA	301.26	205.00
Koteshwar	612.50	598.50	610.77	4.95	608.40	3.76	208.00	207.00
Chamera-I	760.00	748.75	757.00	12.82	NA	NA	505.02	347.40
Rihand	268.22	252.98	258.07	205.10	256.79	149.00	NA	NA
RPS	352.80	343.81	348.06	NA	NA	NA	NA	NA
Jawahar Sagar	298.70	295.78	298.80	NA	NA	NA	NA	NA
RSD	527.91	487.91	516.64	144.00	506.65	144.00	224.47	197.51

\* NA: Not Available

**X(A). Short-Term Open Access Details:**

State	Off- Peak Hours (03:00 Hrs)			Peak Hours (20:00 Hrs)			Day Energy (MU)		
	Bilateral (MW)	IEX (MW)	PXIL (MW)	Bilateral (MW)	IEX (MW)	PXIL (MW)	Bilateral (MU)	IEX / PXIL (MU)	Total (MU)
Punjab	1618	243	0	1569	0	0	38.04	4.07	42.11
Delhi	320	3	-20	359	-56	-20	11.86	-2.50	9.35
Haryana	1530	133	0	1484	-32	0	34.37	-3.82	30.55
HP	-926	-485	0	-774	-440	0	-19.23	-10.46	-29.69
J&K	-334	-39	0	-334	84	0	-10.38	-2.36	-12.74
CHD	0	0	0	0	0	0	0.33	0.32	0.65
Rajasthan	-756	148	2	-707	100	0	-14.46	5.08	-9.37
UP	397	345	0	279	0	0	7.89	1.74	9.64
Uttarakhand	0	-25	0	0	-13	0	0.00	-0.49	-0.49
<b>Total</b>	<b>1849</b>	<b>322</b>	<b>-18</b>	<b>1876</b>	<b>-357</b>	<b>-20</b>	<b>48.43</b>	<b>-8.42</b>	<b>40.01</b>

**X(B). Short-Term Open Access Details:**

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	1618	1569	400	0	0	0
Delhi	931	271	167	-530	0	-20
Haryana	1530	1114	198	-416	0	0
HP	-723	-926	-397	-516	0	0
J&K	-334	-638	84	-292	0	0
CHD	42	0	44	0	0	0
Rajasthan	-166	-756	738	-25	6	0
UP	461	258	345	0	25	0
Uttarakhand	0	0	0	-25	0	0

**XI. System Constraints:****XII. Grid Disturbance / Any Other Significant Event:****XIII. Weather Conditions For 08.07.2014 :**

1. Scattered rain in NR.

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

0.00

**XV. Synchronisation of new 220 / 400 / 765 KV lines and energising of bus / /substation :****XVI. Tripping of lines in pooling stations :****XVII. Complete generation loss in a generating station :**