

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिस्ट की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 24.07.2014  
Date of Reporting : 25.07.2014

### 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
42569	3346	45915	49.99	42146	2820	44966	50.06	1002.0	64.17

\* 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	52.49	23.43		75.92	118.97	120.79	1.82	196.70	0.23
Haryana	65.79	0.53		66.32	112.96	111.79	-1.16	178.11	0.00
Rajasthan	121.94	0.00	9.35	131.29	46.12	47.97	1.85	179.26	0.86
Delhi	30.18			30.18	75.24	72.63	-2.61	102.81	0.05
UP	126.60	4.60	1.20	132.40	115.48	121.01	5.52	253.41	62.74
Uttarakhand		20.92		20.92	13.03	13.39	0.36	34.32	0.24
HP		24.90		24.90	0.70	0.30	-0.40	25.20	0.06
J & K		10.58	0.00	10.58	15.82	16.22	0.40	26.80	0.00
Chandigarh				0.00	5.44	5.35	-0.09	5.35	0.00
<b>Total</b>	<b>396.99</b>	<b>84.97</b>	<b>10.55</b>	<b>492.51</b>	<b>503.75</b>	<b>509.45</b>	<b>5.70</b>	<b>1001.96</b>	<b>64.17</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	8227	150	63	1386	8262	0	26	1968	8634
Haryana	7891	0	-125	1554	7494	0	-39	1591	8207
Rajasthan	7082	0	-64	-789	7323	0	277	-515	8053
Delhi	4503	11	51	702	4033	0	-98	232	4896
UP	10296	3045	100	252	11370	2820	193	1118	11713
Uttarakhand	1635	40	187	96	1380	0	-1	108	1635
HP	1049	0	-10	-1245	909	0	-21	-1413	1223
J&K	1722	100	112	-324	1182	0	-38	-176	1722
Chandigarh	164	0	-60	0	193	0	2	0	256
<b>Total</b>	<b>42569</b>	<b>3346</b>	<b>255</b>	<b>1630</b>	<b>42146</b>	<b>2820</b>	<b>300</b>	<b>2913</b>	<b>43889</b>

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

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### 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	1351	1474	1445	35.54	1481	32.36	3.18
	Rihand I STPS	1000	853	936	934	22.11	921	20.26	1.84
	Rihand II STPS	1000	460	524	510	12.24	510	10.89	1.35
	Rihand III STPS	1000	451	495	488	11.78	491	10.70	1.08
	Dadri I STPS	840	770	850	779	18.15	756	17.37	0.78
	Dadri II STPS	980	475	495	436	10.97	457	10.94	0.03
	Unchahar I TPS	420	396	430	418	10.26	428	9.39	0.87
	Unchahar II TPS	420	400	438	411	10.17	424	9.26	0.91
	Unchahar III TPS	210	198	215	169	4.89	204	4.47	0.42
	ISTPP (Jhajjar)	1500	950	781	729	19.14	798	18.72	0.29
	Dadri GPS	830	519	373	182	6.31	263	6.49	-0.18
	Anta GPS	419	383	232	231	6.07	253	6.01	0.06
	Auraiya GPS	663	484	156	153	3.73	155	3.62	0.11
	Dadri Solar	5	1	0	0	0.02	1	0.03	0.00
	Unchahar Solar	10	3	0	0	0.02	1	0.07	-0.05
	<b>Sub Total (A)</b>	<b>11297</b>	<b>7694</b>	<b>7399</b>	<b>6885</b>	<b>171</b>	<b>7142</b>	<b>161</b>	<b>11</b>
B. NPC	NAPS	440	275	312	313	6.53	272	6.60	-0.07
	RAPS- B	440	362	438	379	7.71	321	8.68	-0.97
	RAPS- C	440	375	400	400	8.93	372	9.00	-0.07
	<b>Sub Total (B)</b>	<b>1320</b>	<b>1012</b>	<b>1150</b>	<b>1092</b>	<b>23.17</b>	<b>965</b>	<b>24.28</b>	<b>-1.11</b>
C. NHPC	Chamera I HPS	540	534	552	555	13.15	548	12.82	0.34
	Chamera II HPS	300	301	309	306	7.29	304	7.22	0.07
	Chamera III HPS	231	229	235	234	5.54	231	5.50	0.05
	Bairasui HPS	180	175	120	120	3.05	127	3.04	0.01
	Salal-HPS	690	433	682	0	10.66	444	10.38	0.28
	Tanakpur-HPS	94	27	85	0	0.66	28	0.66	0.01
	Uri-HPS	480	475	478	475	11.46	478	11.40	0.06
	Uri-II HPS	240	240	243	248	5.73	239	5.76	-0.03
	Dhauliganga-HPS	280	0	0	0	0.00	0	0.00	0.00
	Dulhasti-HPS	390	386	389	389	9.30	387	9.26	0.03
	Sewa-II HPS	120	119	128	0	0.97	41	0.90	0.07
	Parbati 3	390	235	263	261	5.46	228	5.66	-0.19
	<b>Sub Total ©</b>	<b>3935</b>	<b>3153</b>	<b>3485</b>	<b>2589</b>	<b>73</b>	<b>3054</b>	<b>73</b>	<b>1</b>
D.SJVNL	NJPC	1500	1605	1616	1615	38.52	1605	38.52	-0.01
	Rampur HEP	275	280	285	287	6.77	282	6.72	0.05
	<b>Sub Total (D)</b>	<b>1775</b>	<b>1885</b>	<b>1901</b>	<b>1902</b>	<b>45.29</b>	<b>1887</b>	<b>45.24</b>	<b>0.04</b>
E. THDC	Tehri HPS	1000	800	810	401	10.15	423	10.00	0.15
	Koteshwar HPS	400	300	299	90	4.29	179	4.25	0.04
	<b>Sub Total (E)</b>	<b>1400</b>	<b>1100</b>	<b>1109</b>	<b>491</b>	<b>14.45</b>	<b>602</b>	<b>14.25</b>	<b>0.20</b>
F. BBMB	Bhakra HPS	1514	940	1331	807	22.90	954	22.57	0.34
	Dehar HPS	990	563	825	605	14.22	593	13.51	0.72
	Pong HPS	396	206	372	123	5.10	213	4.94	0.17
	<b>Sub Total (F)</b>	<b>2900</b>	<b>1709</b>	<b>2528</b>	<b>1535</b>	<b>42.23</b>	<b>1759</b>	<b>41.01</b>	<b>1.22</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	229	229	5.44	227	5.25	0.19
	KWHEP HPS(IPP)	1000	0	1200	1200	28.68	1195	28.51	0.17
	Malana Stg-II HPS	100	0	113	112	2.67	111	2.50	0.18
	Shree Cement TPS	300	0	0	135	1.27	53	2.64	-1.37
	Budhil HPS(IPP)	70	0	71	71	1.69	70	1.67	0.01
	<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1613</b>	<b>1746</b>	<b>39.75</b>	<b>1656</b>	<b>40.58</b>	<b>-0.82</b>
<b>H. Total Regional Entities (A-G)</b>		<b>24289</b>	<b>16552</b>	<b>19185</b>	<b>16240</b>	<b>409.57</b>	<b>17066</b>	<b>398.53</b>	<b>11.05</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	665	575	13.06	544	
	Guru Nanak Dev TPS(Bhatinda)	440	332	434	7.98	332	
	Guru Hargobind Singh TPS(L.mbt)	920	709	710	15.74	656	
	Goindwal(GVK)		0	0	0.00	0	
	Rajpura	700	700	697	15.71	654	
	Talwandi Saboo	660	0	0	0.00	0	
	Thermal (Total)	<b>3980</b>	<b>2406</b>	<b>2416</b>	<b>52.49</b>	<b>2187</b>	
	Total Hydro	1148	965	974	23.43	976	
	<b>Total Punjab</b>	<b>5128</b>	<b>3371</b>	<b>3390</b>	<b>75.92</b>	<b>3163</b>	
	Haryana	Panipat TPS	1367	783	785	18.02	751
DCRTPP (Yamuna nagar)		600	503	454	11.11	463	
Faridabad GPS (NTPC)		432	195	179	4.53	189	
RGTPP (khedar) (IPP)		1200	920	968	22.82	951	
Magnum Diesel (IPP)		25	0	0	0.00	0	
Jhajjar(CLP)		1320	370	442	9.31	388	
Thermal (Total)		4944	2771	2828	65.79	2741	
Total Hydro		62	22	22	0.53	22	
<b>Total Haryana</b>		<b>5006</b>	<b>2793</b>	<b>2850</b>	<b>66.32</b>	<b>2763</b>	
Rajasthan		kota TPS	1240	906	881	21.39	891
	suratgarh TPS	1500	1100	1028	26.14	1089	
	Chabra TPS	750	346	329	8.72	363	
	Dholpur GPS	330	90	121	2.32	97	
	Ramgarh GPS	271	127	102	3.52	147	
	RAPS A (NPC)	300	0	0	0.00	0	
	Barsingsar (NLC)	250	97	97	2.18	91	
	Giral LTPS	250	48	48	1.18	49	
	Rajwest LTPS (IPP)	1080	764	767	18.53	772	
	VSLP LTPS (IPP)	135	0	0	0.00	0	
	Kalisindh Thermal	600	392	406	9.92	413	
	Kawai(Adani)	1320	1104	949	28.06	1169	
	Thermal (Total)	8026	4974	4728	122	5081	
	Total Hydro	550	0	0	0.00	0	
	Wind power	2798	493	556	8.15	339	
	Biomass	99	39	39	0.93	39	
	Solar	730	0	0	0.28	12	
	Renewable/Others (Total)	3627	532	595	9.35	390	
	<b>Total Rajasthan</b>	<b>12203</b>	<b>5506</b>	<b>5323</b>	<b>131.29</b>	<b>5471</b>	
	UP	Anpara TPS	1630	845	761	18.80	783
Obra TPS		1288	516	521	12.10	504	
Paricha TPS		1140	716	732	16.30	679	
Panki TPS		210	144	140	3.40	142	
Harduaganj TPS		665	417	423	9.90	413	
Tanda TPS (NTPC)		440	373	375	9.10	379	
Roza TPS (IPP)		1200	1089	1098	26.30	1096	
Anpara-C (IPP)		1200	898	900	21.30	888	
Bajaj Energy Pvt.Ltd(IPP) TPS		450	403	401	9.40	392	
Thermal (Total)		8223	5401	5351	126.60	5275	
Vishnuparyag HPS (IPP)		400	0	0	0.00	0	
Other Hydro		527	188	216	4.60	192	
Cogeneration		981	50	50	1.20	50	
<b>Total UP</b>		<b>10131</b>	<b>5639</b>	<b>5617</b>	<b>132.40</b>	<b>5517</b>	
Uttarakhand		Total Hydro	1303	872	870	20.92	872
		<b>Total Uttarakhand</b>	<b>1303</b>	<b>872</b>	<b>870</b>	<b>20.92</b>	<b>872</b>
Delhi	Rajghat TPS	135	95	98	2.12	88	
	Delhi Gas Turbine	282	179	184	4.36	182	
	Pragati Gas Turbine	330	286	290	6.83	284	
	Rithala GPS	95	0	0	0.00	0	
	Bawana GPS	1370	313	300	6.76	282	
	Badarpur TPS (NTPC)	705	413	350	10.11	421	
	Thermal (Total)	2917	1286	1222	30.18	1257	
	<b>Total Delhi</b>	<b>2917</b>	<b>1286</b>	<b>1222</b>	<b>30.18</b>	<b>1257</b>	
HP	Baspa HPS (IPP)	300	334	323	7.66	319	
	Malana HPS (IPP)	86	102	105	2.47	103	
	Other Hydro	728	679	659	14.77	615	
	<b>Total HP</b>	<b>1114</b>	<b>1115</b>	<b>1087</b>	<b>24.90</b>	<b>1038</b>	
J & K	Baqilhar HPS (IPP)	450	436	442	10.58	441	
	Other Hydro/IPP	436	0	0	0.00	0	
	Gas/Diesel/Others	209	0	0	0.00	0	
	<b>Total J &amp; K</b>	<b>1094</b>	<b>436</b>	<b>442</b>	<b>10.58</b>	<b>441</b>	
<b>Total State Control Area Generation</b>		<b>38896</b>	<b>21018</b>	<b>20801</b>	<b>492.51</b>	<b>20521</b>	
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>4500</b>	<b>6303</b>	<b>136.13</b>	<b>5672</b>	
<b>Total Regional Availability(Gross)</b>		<b>63186</b>	<b>44703</b>	<b>43344</b>	<b>1038.22</b>	<b>43259</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	11302	10565	8057	212.05	8835
State Control Area Hydro	5589	3598	3611	84.97	3540
<b>Total Regional Hydro</b>	<b>16891</b>	<b>14163</b>	<b>11668</b>	<b>297.02</b>	<b>12376</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	200	500	0	6.34	0.00	6.34
Gwalior-Agra (D/C)	1282	1823	2014	0	32.29	0.00	32.29
Zerda-Kankroli	-104	-37	74	246	0.00	2.34	-2.34
Zerda-Bhinmal	-99	-33	-135	229	0.00	1.54	-1.54
Malanpur-Auraiya	-115	-58	0	118	0.00	1.55	-1.55
Badod-Kota/Morak	-115	-60	0	175	0.00	2.30	-2.30
Mundra-Mohindergarh(HVDC)	1998	2201	2304	0	52.86	0.00	52.86
Vindhychal - Rihand	429	325	442	0	11.02	0.00	11.02
<b>Sub Total WR</b>	<b>3376</b>	<b>4361</b>			<b>102.52</b>	<b>7.72</b>	<b>94.79</b>
Pusaali Bypass	400	400	0	400	9.59	0.00	9.59
MZP- GKP (D/C)	260	552	636	0	10.82	0.00	10.82
Patna-Balia(D/C)	375	556	733	0	12.00	0.00	12.00
B'Sharif-Balia (D/C)	110	207	425	0	4.77	0.00	4.77
Pusaali-Balia	-86	-74	0	144	0.00	1.66	-1.66
Gaya-Fatehpur (765 Kv)	-50	42	86	63	0.66	0.00	0.66
Pusaali-Sahupuri	131	144	0	196	3.32	0.00	3.32
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-36	-33	0	40	0.00	0.82	-0.82
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	20	148	195	38	2.66	0.00	2.66
<b>Sub Total ER</b>	<b>1124</b>	<b>1942</b>			<b>43.81</b>	<b>2.48</b>	<b>41.34</b>
<b>Total IR Exch</b>	<b>4500</b>	<b>6303</b>			<b>146.33</b>	<b>10.20</b>	<b>136.13</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
25.22	3.83	29.04	12.85	8.32	0.07	7.41	0.00	0.00

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
41.97	82.31	124.28	41.34	94.79	136.13	-0.63	12.48	11.85

**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	2.78	8.26	29.93	70.83	55.90	9.51	1.82	0.63	NA

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			
50.26	13.03	49.54	19.09	49.94	0.14	0.10	50.30	49.75

**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	18:09	401	22:43	0.0	0.0	0.0	0.0
Gorakhpur	400	415	13:10	397	15:10	0.0	0.0	0.0	0.0
Bareilly	400	416	06:12	396	11:11	0.0	0.0	0.0	0.0
Kanpur	400	420	06:04	405	11:14	0.0	0.0	0.0	0.0
Dadri	400	414	06:04	397	11:10	0.0	0.0	0.0	0.0
Ballabgarh	400	421	06:03	404	11:10	0.0	0.0	1.6	0.0
Bawana	400	417	06:03	402	11:09	0.0	0.0	0.0	0.0
Bassi	400	429	04:01	411	11:10	0.0	0.0	35.7	0.0
Hissar	400	409	06:03	395	11:10	0.0	0.0	0.0	0.0
Moga	400	0	00:00	9999	00:00	0.0	0.0	0.0	0.0
Abdullapur	400	416	06:03	396	11:09	0.0	0.0	0.0	0.0
Nalagarh	400	413	06:03	399	11:11	0.0	0.0	0.0	0.0
Kishenpur	400	418	06:02	407	00:07	0.0	0.0	0.0	0.0
Wagoora	400	413	06:02	394	20:45	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	781	06:04	750	22:07	0.0	0.0	0.0	0.0
Balia	765	781	06:04	752	22:19	0.0	0.0	0.0	0.0
Moga	765	0	00:00	9999	00:00	0.0	0.0	0.0	0.0
Agra	765	796	06:04	764	22:08	0.0	0.0	0.0	0.0
Bhiwani	765	798	06:04	381	19:41	11.5	11.5	0.0	0.0
Unnao	765	759	06:18	731	22:15	0.0	33.1	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	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	1511	457	0	1377	8	0	34.55	6.26	40.81
Delhi	313	-30	-51	352	400	-51	11.26	4.33	15.58
Haryana	1404	187	0	1431	123	0	30.86	2.55	33.41
HP	-1143	-270	0	-991	-254	0	-23.23	-6.62	-29.84
J&K	-334	158	0	-334	10	0	-10.09	-0.62	-10.70
CHD	0	0	0	0	0	0	0.33	0.29	0.62
Rajasthan	-791	273	3	-791	1	0	-16.86	5.59	-11.27
UP	531	541	47	251	0	1	8.45	4.44	12.89
Uttarakhand	111	-4	0	111	-15	0	2.67	-0.22	2.45
<b>Total</b>	<b>1601</b>	<b>1312</b>	<b>-1</b>	<b>1406</b>	<b>274</b>	<b>-50</b>	<b>37.94</b>	<b>16.00</b>	<b>53.94</b>

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	1511	1377	473	8	0	0
Delhi	825	264	653	-386	-1	-51
Haryana	1548	938	196	-491	0	0
HP	-839	-1143	-190	-467	0	0
J&K	-334	-537	158	-141	0	0
CHD	41	0	34	0	0	0
Rajasthan	-496	-791	463	1	3	0
UP	598	216	836	0	48	0
Uttarakhand	111	111	22	-22	0	0

**XI. System Constraints:****XII. Grid Disturbance / Any Other Significant Event:****XIII. Weather Conditions For 24.07.2014 :****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 :**