

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 10.07.2014  
Date of Reporting : 11.07.2014

### 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
44790	4000	48790	49.75	45561	2728	48289	49.69	1071.3	91.68

\* 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	59.45	22.05		81.50	125.73	124.74	-0.99	206.25	18.24
Haryana	66.92	0.63		67.55	118.33	115.27	-3.06	182.82	0.04
Rajasthan	109.07	0.98	19.96	130.01	67.17	71.43	4.26	201.45	8.26
Delhi	33.39			33.39	87.44	85.90	-1.54	119.29	0.67
UP	119.80	13.44	1.20	134.44	120.88	124.80	3.92	259.24	61.66
Uttarakhand		23.18		23.18	14.20	14.74	0.54	37.92	0.97
HP		24.45		24.45	1.72	1.68	-0.04	26.13	0.13
J & K		14.80	0.00	14.80	17.21	16.52	-0.69	31.32	1.70
Chandigarh				0.00	5.63	6.90	1.27	6.90	0.00
<b>Total</b>	<b>388.64</b>	<b>99.53</b>	<b>21.16</b>	<b>509.33</b>	<b>558.31</b>	<b>561.99</b>	<b>3.67</b>	<b>1071.31</b>	<b>91.68</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	8785	925	-68	1569	8913	0	-44	1723	9278
Haryana	7784	4	-174	1339	8104	0	16	1409	8316
Rajasthan	7272	711	208	-106	8660	0	161	-53	9182
Delhi	5157	0	90	262	4787	38	-121	133	5749
UP	11111	2185	-40	593	11039	2690	53	843	11344
Uttarakhand	1700	75	69	75	1503	0	4	43	1746
HP	1008	0	-17	-1165	936	0	-19	-1385	1224
J&K	1678	100	146	-250	1366	0	29	-373	1693
Chandigarh	295	0	41	0	253	0	31	10	362
<b>Total</b>	<b>44790</b>	<b>4000</b>	<b>255</b>	<b>2317</b>	<b>45561</b>	<b>2728</b>	<b>111</b>	<b>2350</b>	<b>46185</b>

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

Diversity is 1.06

### 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	1726	1535	2041	42.05	1752	41.41	0.64
	Rihand I STPS	1000	869	950	945	21.61	900	20.86	0.75
	Rihand II STPS	1000	950	1041	1030	23.61	984	22.78	0.83
	Rihand III STPS	1000	830	888	892	20.31	846	19.85	0.47
	Dadri I STPS	840	813	810	762	20.03	835	19.51	0.52
	Dadri II STPS	980	966	971	874	22.63	943	23.12	-0.49
	Unchahar I TPS	420	397	436	435	9.85	411	9.48	0.37
	Unchahar II TPS	420	398	440	441	9.91	413	9.45	0.45
	Unchahar III TPS	210	198	218	215	4.92	205	4.69	0.23
	ISTPP (Jhajhar)	1500	1410	997	974	22.65	944	23.38	-0.73
	Dadri GPS	830	603	170	174	3.99	166	4.39	-0.40
	Anta GPS	419	378	250	250	5.80	241	5.79	0.01
	Auraiya GPS	663	630	148	148	3.37	141	3.46	-0.08
	Dadri Solar	5	1	0	0	0.03	1	0.03	0.00
	Unchahar Solar	10	0	0	0	0.00	0	0.00	0.00
	<b>Sub Total (A)</b>	<b>11297</b>	<b>10167</b>	<b>8854</b>	<b>9181</b>	<b>211</b>	<b>8782</b>	<b>208</b>	<b>3</b>
B. NPC	NAPS	440	269	297	308	6.37	265	6.46	-0.09
	RAPS- B	440	391	439	438	9.39	391	9.38	0.01
	RAPS- C	440	205	223	221	4.77	199	4.92	-0.15
	<b>Sub Total (B)</b>	<b>1320</b>	<b>865</b>	<b>959</b>	<b>967</b>	<b>20.53</b>	<b>855</b>	<b>20.76</b>	<b>-0.23</b>
C. NHPC	Chamera I HPS	540	535	540	540	13.08	545	12.84	0.24
	Chamera II HPS	300	301	309	308	7.34	306	7.22	0.13
	Chamera III HPS	231	229	240	238	5.66	236	5.50	0.16
	Bairasui HPS	180	132	120	120	2.61	109	2.55	0.06
	Salal-HPS	690	663	676	676	16.13	672	15.82	0.31
	Tanakpur-HPS	94	75	82	63	1.86	78	1.80	0.07
	Uri-HPS	480	475	478	477	11.06	461	11.40	-0.34
	Uri-II HPS	240	240	243	247	5.84	243	5.76	0.08
	Dhauliganga-HPS	280	131	139	138	3.08	128	3.14	-0.06
	Dulhasti-HPS	390	258	276	270	6.32	263	6.19	0.13
	Sewa-II HPS	120	119	129	0	1.65	69	1.40	0.25
	Parbati 3	390	261	270	267	5.39	225	5.27	0.13
	<b>Sub Total ©</b>	<b>3935</b>	<b>3419</b>	<b>3502</b>	<b>3344</b>	<b>80</b>	<b>3335</b>	<b>79</b>	<b>1</b>
D.SJVNL	NJPC	1500	1605	1605	1605	38.57	1607	38.52	0.04
	Rampur HEP	275	280	290	289	6.90	287	6.72	0.18
	<b>Sub Total (D)</b>	<b>1775</b>	<b>1885</b>	<b>1895</b>	<b>1894</b>	<b>45.46</b>	<b>1894</b>	<b>45.24</b>	<b>0.22</b>
E. THDC	Tehri HPS	1000	608	608	0	5.28	220	5.10	0.18
	Koteshwar HPS	400	104	199	93	2.56	107	2.50	0.06
	<b>Sub Total (E)</b>	<b>1400</b>	<b>712</b>	<b>807</b>	<b>93</b>	<b>7.84</b>	<b>326</b>	<b>7.60</b>	<b>0.24</b>
F. BBMB	Bhakra HPS	1514	924	1336	932	22.50	937	22.18	0.32
	Dehar HPS	990	563	825	580	13.83	576	13.51	0.32
	Pong HPS	396	245	360	180	5.83	243	5.88	-0.05
	<b>Sub Total (F)</b>	<b>2900</b>	<b>1732</b>	<b>2521</b>	<b>1692</b>	<b>42.16</b>	<b>1757</b>	<b>41.57</b>	<b>0.59</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	231	231	5.36	223	5.30	0.06
	KWHEP HPS(IPP)	1000	0	1200	1200	28.63	1193	28.66	-0.04
	Malana Stg-II HPS	100	0	112	113	2.67	111	2.51	0.16
	Shree Cement TPS	300	0	224	224	5.44	227	5.66	-0.22
	Budhil HPS(IPP)	70	0	72	71	1.70	71	1.69	0.01
	<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1839</b>	<b>1839</b>	<b>43.79</b>	<b>1824</b>	<b>43.83</b>	<b>-0.04</b>
<b>H. Total Regional Entities (A-G)</b>		<b>24289</b>	<b>18779</b>	<b>20377</b>	<b>19010</b>	<b>450.56</b>	<b>18773</b>	<b>446.07</b>	<b>4.49</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	1036	1034	22.70	946
	Guru Nanak Dev TPS(Bhatinda)	440	328	410	7.78	324
	Guru Hargobind Singh TPS(L.mbt)	920	709	708	15.70	654
	Goindwal(GVK)		0	0	0.00	0
	Rajpura	700	551	658	13.27	553
	Talwandi Saboo	660	0	0	0.00	0
	Thermal (Total)	<b>3980</b>	<b>2624</b>	<b>2810</b>	<b>59.45</b>	<b>2477</b>
	Total Hydro	1148	924	969	22.05	919
	<b>Total Punjab</b>	<b>5128</b>	<b>3548</b>	<b>3779</b>	<b>81.50</b>	<b>3396</b>
	Haryana	Panipat TPS	1367	811	617	17.35
DCRTPP (Yamuna nagar)		600	259	526	11.04	460
Faridabad GPS (NTPC)		432	0	0	0.00	0
RGTPP (khedar) (IPP)		1200	1168	1135	26.04	1085
Magnum Diesel (IPP)		25	0	0	0.00	0
Jhajjar(CLP)		1320	567	568	12.49	520
Thermal (Total)		4944	2805	2846	66.92	2788
Total Hydro		62	26	22	0.63	26
<b>Total Haryana</b>		<b>5006</b>	<b>2831</b>	<b>2868</b>	<b>67.55</b>	<b>2815</b>
Rajasthan		kota TPS	1240	919	952	22.25
	suratgarh TPS	1500	1075	1097	25.61	1067
	Chabra TPS	750	389	318	8.65	360
	Dholpur GPS	330	115	113	2.34	97
	Ramgarh GPS	271	77	0	1.97	82
	RAPS A (NPC)	300	0	0	0.00	0
	Barsingsar (NLC)	250	98	98	2.15	89
	Giral LTPS	250	48	48	0.96	40
	Rajwest LTPS (IPP)	1080	833	928	20.61	859
	VSLP LTPS (IPP)	135	0	0	0.00	0
	Kalisindh Thermal	600	0	315	5.74	239
	Kawai(Adani)	1320	578	1166	18.82	784
	Thermal (Total)	8026	4132	5035	109	4545
	Total Hydro	550	18	0	0.98	41
	Wind power	2798	326	1083	18.51	771
	Biomass	99	35	35	0.84	35
	Solar	730	0	0	0.60	25
	Renewable/Others (Total)	3627	361	1118	19.96	832
	<b>Total Rajasthan</b>	<b>12203</b>	<b>4511</b>	<b>6153</b>	<b>130.01</b>	<b>5417</b>
	UP	Anpara TPS	1630	887	761	19.00
Obra TPS		1288	341	364	8.30	346
Paricha TPS		1140	613	593	14.90	621
Panki TPS		210	126	126	3.10	129
Harduaganj TPS		665	377	383	9.10	379
Tanda TPS (NTPC)		440	310	283	7.50	313
Roza TPS (IPP)		1200	1112	1098	26.50	1104
Anpara-C (IPP)		1200	936	947	22.60	942
Bajaj Energy Pvt.Ltd(IPP) TPS		450	405	365	8.80	367
Thermal (Total)		8223	5107	4920	119.80	4992
Vishnuparyag HPS (IPP)		400	436	436	9.40	392
Other Hydro		527	182	178	4.04	168
Cogeneration		981	50	50	1.20	50
<b>Total UP</b>		<b>10131</b>	<b>5775</b>	<b>5584</b>	<b>134.44</b>	<b>5210</b>
Uttarakhand		Total Hydro	1303	931	901	23.18
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>931</b>	<b>901</b>	<b>23.18</b>	<b>966</b>
Delhi	Rajghat TPS	135	49	45	1.29	54
	Delhi Gas Turbine	282	167	144	3.67	153
	Pragati Gas Turbine	330	277	284	7.01	292
	Rithala GPS	95	0	0	0.00	0
	Bawana GPS	1370	281	285	7.06	294
	Badarpur TPS (NTPC)	705	594	601	14.36	598
	Thermal (Total)	2917	1368	1359	33.39	1391
	<b>Total Delhi</b>	<b>2917</b>	<b>1368</b>	<b>1359</b>	<b>33.39</b>	<b>1391</b>
HP	Baspa HPS (IPP)	300	300	300	7.71	321
	Malana HPS (IPP)	86	102	102	2.47	103
	Other Hydro	728	600	600	14.27	595
	<b>Total HP</b>	<b>1114</b>	<b>1002</b>	<b>1002</b>	<b>24.45</b>	<b>1019</b>
J & K	Baqlihar HPS (IPP)	450	438	438	10.58	441
	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>601</b>	<b>613</b>	<b>14.80</b>	<b>617</b>
<b>Total State Control Area Generation</b>		<b>38896</b>	<b>20567</b>	<b>22259</b>	<b>509.33</b>	<b>20830</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>6524</b>	<b>6480</b>	<b>151.33</b>	<b>6305</b>
<b>Total Regional Availability(Gross)</b>		<b>63186</b>	<b>47468</b>	<b>47749</b>	<b>1111.22</b>	<b>45909</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	11302	10268	8566	212.14	8839
State Control Area Hydro	5589	3684	3685	99.53	3755
<b>Total Regional Hydro</b>	<b>16891</b>	<b>13952</b>	<b>12251</b>	<b>311.67</b>	<b>12595</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	-300	450	200	0.53	5.19	-4.66
Gwalior-Agra (D/C)	2022	1983	2022	0	43.27	0.00	43.27
Zerda-Kankroli	-1	-154	72	185	0.00	2.30	-2.30
Zerda-Bhinmal	-31	156	0	206	0.00	1.76	-1.76
Malanpur-Auraiya	-68	-28	0	69	0.00	0.93	-0.93
Badod-Kota/Morak	-10	-35	11	38	0.00	0.58	-0.58
Mundra-Mohindergarh(HVDC)	2302	2299	2315	0	52.69	0.00	52.69
Vindhychal - Rihand	505	507	507	0	12.35	0.00	12.35
<b>Sub Total WR</b>	<b>4669</b>	<b>4428</b>			<b>108.84</b>	<b>10.76</b>	<b>98.08</b>
Pusaui Bypass	400	400	400	0	9.75	0.00	9.75
MZP- GKP (D/C)	542	620	888	0	15.14	0.00	15.14
Patna-Balia(D/C)	314	342	666	0	10.70	0.00	10.70
B'Sharif-Balia (D/C)	384	412	502	0	9.73	0.00	9.73
Pusaui-Balia	-32	-31	0	62	0.00	0.92	-0.92
Gaya-Fatehpur (765 Kv)	0	0	0	0	0.00	0.00	0.00
Pusaui-Sahupuri	144	154	165	0	3.30	0.00	3.30
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-38	-26	0	40	0.00	0.55	-0.55
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	141	181	389	0	6.11	0.00	6.11
<b>Sub Total ER</b>	<b>1855</b>	<b>2052</b>			<b>54.72</b>	<b>1.47</b>	<b>53.25</b>
<b>Total IR Exch</b>	<b>6524</b>	<b>6480</b>			<b>163.56</b>	<b>12.23</b>	<b>151.33</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
27.70	3.75	31.45	20.27	0.28	-0.08	1.78	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
51.64	80.03	131.67	53.25	98.08	151.33	1.61	18.05	19.66

**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	18.17	43.32	73.57	90.68	21.48	3.34	1.61	0.00	0.00

Frequency (Hz)				Average Frequency Hz	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX (Hz)	MIN (Hz)
50.17	18.01	49.41	19.50	49.82	0.50	0.13	50.17	49.59

**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	404	17:57	398	23:10	0.0	0.0	0.0	0.0
Gorakhpur	400	411	18:02	395	03:11	0.0	0.0	0.0	0.0
Bareilly	400	410	18:00	378	23:53	0.0	0.0	0.0	0.0
Kanpur	400	412	06:43	399	15:06	0.0	0.0	0.0	0.0
Dadri	400	405	06:41	391	12:39	0.0	0.0	0.0	0.0
Ballabgarh	400	413	06:45	395	15:06	0.0	0.0	0.0	0.0
Bawana	400	409	06:05	394	12:40	0.0	0.0	0.0	0.0
Bassi	400	421	21:34	401	00:06	0.0	0.0	0.1	0.0
Hissar	400	403	18:02	389	00:12	0.0	1.2	0.0	0.0
Moga	400	406	16:47	396	00:12	0.0	0.0	0.0	0.0
Abdullapur	400	409	06:05	396	14:05	0.0	0.0	0.0	0.0
Nalagarh	400	407	17:59	393	12:10	0.0	0.0	0.0	0.0
Kishenpur	400	412	06:02	401	20:48	0.0	0.0	0.0	0.0
Wagoora	400	408	06:01	389	20:45	0.0	0.3	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	770	17:59	746	15:06	0.0	0.0	0.0	0.0
Balia	765	770	18:02	740	03:11	0.0	1.2	0.0	0.0
Moga	765	785	18:00	763	00:12	0.0	0.0	0.0	0.0
Agra	765	775	17:02	750	15:06	0.0	0.0	0.0	0.0
Bhiwani	765	785	18:56	746	12:41	0.0	0.0	0.0	0.0
Unnao	765	753	18:01	729	15:06	0.0	68.5	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	105	0	1569	0	0	38.04	1.65	39.70
Delhi	320	-137	-51	359	-47	-51	9.50	-1.28	8.22
Haryana	1334	76	0	1287	52	0	29.85	-1.15	28.70
HP	-926	-459	0	-774	-391	0	-19.23	-9.59	-28.82
J&K	-334	-39	0	-334	84	0	-10.00	-2.25	-12.25
CHD	0	10	0	0	0	0	0.33	0.29	0.62
Rajasthan	-756	703	0	-658	552	0	-14.90	18.12	3.22
UP	370	443	30	297	246	49	7.39	3.56	10.95
Uttarakhand	0	43	0	0	75	0	0.00	0.66	0.66
<b>Total</b>	<b>1626</b>	<b>745</b>	<b>-21</b>	<b>1747</b>	<b>571</b>	<b>-1</b>	<b>40.99</b>	<b>10.02</b>	<b>51.01</b>

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	1618	1569	269	0	0	0
Delhi	591	271	432	-566	0	-51
Haryana	1334	1085	160	-719	0	0
HP	-723	-926	-350	-480	0	0
J&K	-334	-516	84	-292	0	0
CHD	42	0	59	0	0	0
Rajasthan	-412	-756	1158	-21	54	0
UP	396	226	443	0	49	0
Uttarakhand	0	0	75	-24	0	0

**XI. System Constraints:****XII. Grid Disturbance / Any Other Significant Event:****XIII. Weather Conditions For 10.07.2014 :**

1. Hot weather.

**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 :**