

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 17.07.2014  
Date of Reporting : 18.07.2014

### 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
41135	2870	44005	50.10	43668	3990	47658	50.05	1006.1	66.36

\* 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	60.81	23.24		84.05	113.75	114.57	0.82	198.62	17.65
Haryana	72.02	0.37		72.39	111.44	103.37	-8.07	175.76	0.45
Rajasthan	108.55	0.21	7.65	116.41	47.76	48.34	0.58	164.74	0.00
Delhi	33.17			33.17	81.92	78.71	-3.21	111.87	0.14
UP	131.50	10.40	1.20	143.10	125.38	126.25	0.88	269.35	45.42
Uttarakhand		18.86		18.86	15.09	15.32	0.24	34.18	1.00
HP		19.48		19.48	-0.33	-0.75	-0.42	18.72	0.00
J & K		10.58	0.00	10.58	16.37	16.48	0.11	27.06	1.70
Chandigarh				0.00	5.93	5.79	-0.14	5.79	0.00
<b>Total</b>	<b>406.05</b>	<b>83.14</b>	<b>8.85</b>	<b>498.03</b>	<b>517.31</b>	<b>508.08</b>	<b>-9.23</b>	<b>1006.11</b>	<b>66.36</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	8154	700	-234	1341	8162	1200	17	1539	8987
Haryana	6055	0	-1558	1543	8329	0	-53	1304	8481
Rajasthan	6831	0	58	-777	6615	0	140	-155	7425
Delhi	4362	0	-310	296	4675	0	-55	34	5542
UP	11001	2070	7	304	11888	2790	143	1415	11990
Uttarakhand	1780	0	107	155	1449	0	-20	83	1780
HP	969	0	-30	-1268	880	0	13	-1383	1118
J&K	1729	100	172	-226	1442	0	131	-349	1729
Chandigarh	256	0	26	34	229	0	11	20	289
<b>Total</b>	<b>41135</b>	<b>2870</b>	<b>-1764</b>	<b>1404</b>	<b>43668</b>	<b>3990</b>	<b>327</b>	<b>2509</b>	<b>44963</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 :

Entity	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
A. NTPC	Singrauli STPS	2000	1525	1535	1630	35.33	1472	35.06	0.28
	Rihand I STPS	1000	800	842	863	20.21	842	18.28	1.93
	Rihand II STPS	1000	800	837	843	19.98	833	18.18	1.80
	Rihand III STPS	1000	800	811	774	19.36	807	17.79	1.57
	Dadri I STPS	840	813	796	785	19.31	804	18.57	0.73
	Dadri II STPS	980	966	891	942	22.03	918	21.76	0.27
	Unchahar I TPS	420	397	415	388	9.88	412	9.13	0.75
	Unchahar II TPS	420	400	398	352	9.51	396	8.68	0.83
	Unchahar III TPS	210	198	190	162	4.61	192	4.22	0.39
	ISTPP (Jhajjar)	1500	1028	1052	939	22.79	950	22.61	0.18
	Dadri GPS	830	519	148	181	3.95	164	3.95	-0.01
	Anta GPS	419	379	0	0	0.00	0	0.00	0.00
	Auraiya GPS	663	631	131	149	3.38	141	3.23	0.15
	Dadri Solar	5	1	0	0	0.00	0	0.03	-0.03
	Unchahar Solar	10	2	0	0	0.01	0	0.06	-0.05
	<b>Sub Total (A)</b>	<b>11297</b>	<b>9260</b>	<b>8046</b>	<b>8008</b>	<b>190</b>	<b>7931</b>	<b>182</b>	<b>9</b>
	B. NPC	NAPS	440	270	313	313	6.51	271	6.48
RAPS- B		440	391	439	440	9.44	393	9.38	0.05
RAPS- C		440	375	406	417	8.61	359	9.00	-0.39
<b>Sub Total (B)</b>		<b>1320</b>	<b>1036</b>	<b>1158</b>	<b>1170</b>	<b>24.56</b>	<b>1023</b>	<b>24.86</b>	<b>-0.31</b>
C. NHPC	Chamera I HPS	540	534	540	540	13.02	543	12.82	0.21
	Chamera II HPS	300	301	309	304	7.28	303	7.22	0.06
	Chamera III HPS	231	229	231	231	5.51	230	5.50	0.01
	Bairasui HPS	180	142	182	182	3.25	135	3.18	0.07
	Salal-HPS	690	643	674	668	15.52	647	15.42	0.10
	Tanakpur-HPS	94	40	58	84	0.95	40	0.96	0.00
	Uri-HPS	480	475	477	473	11.53	480	11.40	0.13
	Uri-II HPS	240	240	241	241	5.83	243	5.76	0.07
	Dhauliganga-HPS	280	138	139	139	3.34	139	3.31	0.03
	Dulhasti-HPS	390	115	272	0	2.82	118	2.77	0.05
	Sewa-II HPS	120	119	120	0	2.34	97	2.20	0.14
	Parbati 3	390	261	270	263	6.31	263	6.27	0.04
	<b>Sub Total ©</b>	<b>3935</b>	<b>3237</b>	<b>3513</b>	<b>3126</b>	<b>78</b>	<b>3237</b>	<b>77</b>	<b>1</b>
D.SJVNL	NJPC	1500	1605	1605	1605	38.52	1605	38.52	0.00
	Rampur HEP	275	262	213	289	6.29	262	6.28	0.01
	<b>Sub Total (D)</b>	<b>1775</b>	<b>1867</b>	<b>1818</b>	<b>1894</b>	<b>44.81</b>	<b>1867</b>	<b>44.80</b>	<b>0.01</b>
E. THDC	Tehri HPS	1000	709	520	302	6.58	274	6.50	0.08
	Koteshwar HPS	400	129	393	90	3.14	131	3.10	0.04
	<b>Sub Total (E)</b>	<b>1400</b>	<b>837</b>	<b>913</b>	<b>392</b>	<b>9.72</b>	<b>405</b>	<b>9.60</b>	<b>0.12</b>
F. BBMB	Bhakra HPS	1514	934	1332	807	22.44	935	22.41	0.03
	Dehar HPS	990	577	825	560	14.21	592	13.86	0.35
	Pong HPS	396	215	368	120	5.39	225	5.16	0.23
	<b>Sub Total (F)</b>	<b>2900</b>	<b>1726</b>	<b>2525</b>	<b>1487</b>	<b>42.04</b>	<b>1752</b>	<b>41.43</b>	<b>0.61</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	229	229	5.44	227	5.30	0.14
	KWHEP HPS(IPP)	1000	0	1200	1200	28.58	1191	28.51	0.07
	Malana Stg-II HPS	100	0	112	112	2.65	111	2.50	0.15
	Shree Cement TPS	300	0	0	0	0.00	0	5.35	-5.35
	Budhil HPS(IPP)	70	0	71	71	1.69	70	1.68	0.01
	<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1612</b>	<b>1612</b>	<b>38.36</b>	<b>1598</b>	<b>43.35</b>	<b>-4.99</b>
<b>H. Total Regional Entities (A-G)</b>	<b>24289</b>	<b>17962</b>	<b>19586</b>	<b>17689</b>	<b>427.52</b>	<b>17814</b>	<b>422.40</b>	<b>5.13</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	1080	1030	25.85	1077
	Guru Nanak Dev TPS(Bhatinda)	440	262	257	6.17	257
	Guru Hargobind Singh TPS(L.mbt)	920	509	508	12.29	512
	Goindwal(GVK)		0	0	0.00	0
	Rajpura	700	643	810	16.50	688
	Talwandi Saboo	660	0	0	0.00	0
	Thermal (Total)	<b>3980</b>	<b>2494</b>	<b>2605</b>	<b>60.81</b>	<b>2534</b>
	Total Hydro	1148	972	968	23.24	968
	<b>Total Punjab</b>	<b>5128</b>	<b>3466</b>	<b>3573</b>	<b>84.05</b>	<b>3502</b>
	Haryana	Panipat TPS	1367	1031	1172	24.62
DCRTPP (Yamuna nagar)		600	438	527	10.98	457
Faridabad GPS (NTPC)		432	0	0	0.00	0
RGTPP (khedar) (IPP)		1200	752	776	20.58	857
Magnum Diesel (IPP)		25	0	0	0.00	0
Jhajjar(CLP)		1320	641	790	15.85	660
Thermal (Total)		4944	2862	3265	72.02	3001
Total Hydro		62	22	0	0.37	16
<b>Total Haryana</b>		<b>5006</b>	<b>2884</b>	<b>3265</b>	<b>72.39</b>	<b>3016</b>
Rajasthan		kota TPS	1240	902	936	21.20
	suratgarh TPS	1500	1044	1053	23.54	981
	Chabra TPS	750	373	349	8.89	371
	Dholpur GPS	330	0	0	0.00	0
	Ramgarh GPS	271	141	21	2.34	97
	RAPS A (NPC)	300	0	0	0.00	0
	Barsingsar (NLC)	250	97	96	2.14	89
	Giral LTPS	250	0	0	0.00	0
	Rajwest LTPS (IPP)	1080	770	434	15.86	661
	VSLP LTPS (IPP)	135	0	0	0.00	0
	Kalisindh Thermal	600	381	390	9.61	400
	Kawai(Adani)	1320	1134	858	24.97	1041
	Thermal (Total)	8026	4842	4137	109	4523
	Total Hydro	550	0	0	0.21	9
	Wind power	2798	114	550	6.75	281
	Biomass	99	27	27	0.65	27
	Solar	730	0	0	0.24	10
	Renewable/Others (Total)	3627	141	577	7.65	319
	<b>Total Rajasthan</b>	<b>12203</b>	<b>4983</b>	<b>4714</b>	<b>116.41</b>	<b>4850</b>
	UP	Anpara TPS	1630	888	932	21.50
Obra TPS		1288	559	532	12.60	525
Paricha TPS		1140	351	753	14.90	621
Panki TPS		210	144	144	3.40	142
Harduaganj TPS		665	424	396	9.60	400
Tanda TPS (NTPC)		440	365	380	9.10	379
Roza TPS (IPP)		1200	1080	1080	26.20	1092
Anpara-C (IPP)		1200	1070	851	24.90	1038
Bajaj Energy Pvt.Ltd(IPP) TPS		450	401	401	9.30	388
Thermal (Total)		8223	5282	5469	131.50	5479
Vishnuparyag HPS (IPP)		400	436	0	6.60	275
Other Hydro		527	130	188	3.80	158
Cogeneration		981	50	50	1.20	50
<b>Total UP</b>		<b>10131</b>	<b>5898</b>	<b>5707</b>	<b>143.10</b>	<b>5688</b>
Uttarakhand		Total Hydro	1303	907	826	18.86
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>907</b>	<b>826</b>	<b>18.86</b>	<b>786</b>
Delhi	Rajghat TPS	135	98	103	2.21	92
	Delhi Gas Turbine	282	182	180	4.08	170
	Pragati Gas Turbine	330	286	289	7.00	292
	Rithala GPS	95	0	0	0.00	0
	Bawana GPS	1370	259	279	5.89	245
	Badarpur TPS (NTPC)	705	595	577	13.98	582
	Thermal (Total)	2917	1420	1428	33.17	1382
	<b>Total Delhi</b>	<b>2917</b>	<b>1420</b>	<b>1428</b>	<b>33.17</b>	<b>1382</b>
HP	Baspa HPS (IPP)	300	330	300	7.49	312
	Malana HPS (IPP)	86	102	102	2.49	104
	Other Hydro	728	632	632	9.50	396
	<b>Total HP</b>	<b>1114</b>	<b>1064</b>	<b>1034</b>	<b>19.48</b>	<b>812</b>
J & K	Baqilhar HPS (IPP)	450	400	440	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>400</b>	<b>440</b>	<b>10.58</b>	<b>441</b>
<b>Total State Control Area Generation</b>		<b>38896</b>	<b>21022</b>	<b>20987</b>	<b>498.03</b>	<b>20476</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>2547.73</b>	<b>5144.64</b>	<b>110.74</b>	<b>4614</b>
<b>Total Regional Availability(Gross)</b>		<b>63186</b>	<b>43155</b>	<b>43820</b>	<b>1036.29</b>	<b>42904</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	11302	10311	8440	210.93	8789
State Control Area Hydro	5589	3495	3456	83.14	3189
<b>Total Regional Hydro</b>	<b>16891</b>	<b>13806</b>	<b>11896</b>	<b>294.07</b>	<b>11978</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	300	400	350	2.27	1.59	0.68
Gwalior-Agra (D/C)	884	2040	2040	0	36.82	0.00	36.82
Zerda-Kankroli	-199	4	4	-205	0.00	3.36	-3.36
Zerda-Bhinmal	-143	-7	3	241	0.00	2.93	-2.93
Malanpur-Auraiya	-35	-27	0	86	0.00	0.90	-0.90
Badod-Kota/Morak	-82	-46	0	82	0.00	1.46	-1.46
Mundra-Mohindergarh(HVDC)	1502	1638	2004	0	41.92	0.00	41.92
Vindhychal - Rihand	501	450	511	0	11.52	0.00	11.52
<b>Sub Total WR</b>	<b>2528</b>	<b>4352</b>			<b>92.53</b>	<b>10.24</b>	<b>82.28</b>
Pusaui Bypass	400	400	400	0	9.72	0.00	9.72
MZP- GKP (D/C)	-2	-508	-600	0	9.18	0.00	9.18
Patna-Balia(D/C)	-117	247	304	0	3.43	0.00	3.43
B'Sharif-Balia (D/C)	-73	266	299	0	4.05	0.00	4.05
Pusaui-Balia	-104	-56	0	-108	0.00	1.61	-1.61
Gaya-Fatehpur (765 Kv)	-44	218	252	-45	0.00	0.17	-0.17
Pusaui-Sahupuri	170	157	186	0	3.94	0.00	3.94
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-37	0	0	-37	0.00	0.97	-0.97
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	-173	69	156	-173	0.89	0.00	0.89
<b>Sub Total ER</b>	<b>20</b>	<b>793</b>			<b>31.21</b>	<b>2.75</b>	<b>28.46</b>
<b>Total IR Exch</b>	<b>2548</b>	<b>5145</b>			<b>123.74</b>	<b>13.00</b>	<b>110.74</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
26.85	3.71	30.56	10.19	10.70	-1.62	6.38	0.00	0.00

Total IR Schedule (MU)			Total IR Actual (MU)			Net IR UI (MU)		
Through ER	Through WR incldg Mndra	Total	Through ER	Through WR	Total	Through ER	Through WR	Total
39.13	76.29	115.42	28.46	82.28	110.74	-10.68	5.99	-4.69

**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	0.00	3.61	24.93	63.26	58.68	8.96	5.60	0.49	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			
50.23	13.03	49.71	9.41	49.96	0.10	0.09	50.27	49.88

**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	17:23	400	00:17	0.0	0.0	0.0	0.0
Gorakhpur	400	409	07:59	394	14:27	0.0	0.0	0.0	0.0
Bareilly	400	416	17:19	396	15:16	0.0	0.0	0.0	0.0
Kanpur	400	420	17:18	405	00:21	0.0	0.0	0.0	0.0
Dadri	400	416	19:55	397	14:38	0.0	0.0	0.0	0.0
Ballabgarh	400	425	19:55	400	15:15	0.0	0.0	15.1	0.0
Bawana	400	415	08:00	400	14:58	0.0	0.0	0.0	0.0
Bassi	400	429	17:11	406	11:35	0.0	0.0	46.5	0.0
Hissar	400	411	17:20	394	00:12	0.0	0.0	0.0	0.0
Moga	400	412	06:05	403	09:38	0.0	0.0	0.0	0.0
Abdullapur	400	417	21:59	396	15:12	0.0	0.0	0.0	0.0
Nalagarh	400	413	21:37	398	15:20	0.0	0.0	0.0	0.0
Kishenpur	400	418	08:03	407	20:07	0.0	0.0	0.0	0.0
Wagoora	400	413	08:05	393	20:40	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	783	17:18	750	00:24	0.0	0.0	0.0	0.0
Balia	765	776	17:21	745	14:28	0.0	0.0	0.0	0.0
Moga	765	798	17:19	166	11:37	43.3	43.3	0.0	0.0
Agra	765	798	17:19	760	15:15	0.0	0.0	0.0	0.0
Bhiwani	765	806	17:16	775	15:15	0.0	0.0	6.6	0.0
Unnao	765	760	08:09	732	15:15	0.0	24.7	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	1389	151	0	1341	0	0	32.55	3.54	36.09
Delhi	313	-232	-47	398	-102	0	11.89	-2.15	9.74
Haryana	1170	134	0	1511	32	0	34.28	1.89	36.16
HP	-927	-456	0	-953	-315	0	-20.07	-10.15	-30.23
J&K	-310	-39	0	-334	109	0	-9.72	-2.46	-12.18
CHD	0	20	0	0	34	0	0.33	0.74	1.07
Rajasthan	-758	601	2	-758	-19	0	-16.13	11.15	-4.98
UP	433	933	49	276	22	5	8.23	7.67	15.89
Uttarakhand	-5	88	0	-5	160	0	-0.12	2.04	1.92
<b>Total</b>	<b>1304</b>	<b>1200</b>	<b>5</b>	<b>1476</b>	<b>-78</b>	<b>5</b>	<b>41.23</b>	<b>12.26</b>	<b>53.50</b>

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	1389	1339	251	0	0	0
Delhi	922	313	366	-423	0	-47
Haryana	1570	1170	167	27	0	0
HP	-725	-1004	-315	-468	0	0
J&K	-310	-537	109	-299	0	0
CHD	41	0	74	0	0	0
Rajasthan	-463	-758	913	-22	2	0
UP	496	256	933	0	49	0
Uttarakhand	-5	-5	180	23	0	0

**XI. System Constraints:****XII. Grid Disturbance / Any Other Significant Event:****XIII. Weather Conditions For 17.07.2014 :**

1. Normal 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 :**