

# पावर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 18.07.2014  
Date of Reporting : 19.07.2014

### I. Regional Availability/Demand:

Demand Met	Evening Peak (20:00 Hrs) MW			Demand Met	Off Peak (03:00 Hrs) MW			Day Energy (Net MU)	
	Shortage	Requirement	Freq* (Hz)		Shortage	Requirement	Freq* (Hz)	Demand Met	Shortage
40759	2100	42859	49.93	37050	0	37050	50.05	925.1	28.94

\* 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	59.78	22.49		82.27	110.68	113.75	3.07	196.02	0.00
Haryana	50.13	0.55		50.67	103.32	98.55	-4.77	149.22	0.06
Rajasthan	102.69	0.00	9.66	112.35	41.76	42.63	0.87	154.98	0.00
Delhi	22.49			22.49	80.57	77.74	-2.83	100.23	0.06
UP	108.20	7.90	1.20	117.30	114.87	114.81	-0.06	232.11	26.58
Uttarakhand		16.37		16.37	14.85	13.60	-1.25	29.97	0.55
HP		24.98		24.98	-1.08	-0.12	0.96	24.86	0.00
J & K		14.73	0.00	14.73	18.06	17.52	-0.54	32.25	1.70
Chandigarh				0.00	5.62	5.45	-0.17	5.45	0.00
<b>Total</b>	<b>343.28</b>	<b>87.02</b>	<b>10.86</b>	<b>441.16</b>	<b>488.65</b>	<b>483.92</b>	<b>-4.73</b>	<b>925.08</b>	<b>28.94</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	8217	0	-85	1341	7792	0	245	1611	8974
Haryana	7340	0	-175	1092	5719	0	-615	1621	7656
Rajasthan	6578	0	-126	-798	5914	0	9	-509	7016
Delhi	4168	0	63	350	3934	0	49	275	4571
UP	10261	1870	-250	710	10050	0	-300	1413	10976
Uttarakhand	1323	130	156	177	1204	0	-197	105	1391
HP	982	0	4	-1217	892	0	13	-1408	1203
J&K	1643	100	-11	-226	1353	0	-5	-349	1715
Chandigarh	248	0	14	0	193	0	-30	20	281
<b>Total</b>	<b>40759</b>	<b>2100</b>	<b>-410</b>	<b>1430</b>	<b>37050</b>	<b>0</b>	<b>-831</b>	<b>2779</b>	<b>42450</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	1602	1785	1492	35.95	1498	34.79	1.16
	Rihand I STPS	1000	834	930	622	17.08	712	16.27	0.81
	Rihand II STPS	1000	897	1021	618	18.29	762	17.66	0.63
	Rihand III STPS	1000	821	889	598	16.98	707	15.98	1.00
	Dadri I STPS	840	813	614	617	14.91	621	13.90	1.01
	Dadri II STPS	980	966	801	703	17.39	725	17.21	0.18
	Unchahar I TPS	420	397	396	299	7.66	319	7.14	0.52
	Unchahar II TPS	420	400	338	311	7.63	318	6.87	0.76
	Unchahar III TPS	210	198	163	152	3.74	156	3.40	0.34
	ISTPP (Jhajjar)	1500	1088	967	919	21.36	890	21.17	0.19
	Dadri GPS	830	519	185	153	3.91	163	4.07	-0.16
	Anta GPS	419	379	0	0	0.00	0	0.00	0.00
	Auraiya GPS	663	631	156	108	3.31	138	3.23	0.08
	Dadri Solar	5	1	0	0	0.01	0	0.02	-0.01
	Unchahar Solar	10	3	0	0	0.00	0	0.07	-0.07
	<b>Sub Total (A)</b>	<b>11297</b>	<b>9548</b>	<b>8245</b>	<b>6592</b>	<b>168</b>	<b>7009</b>	<b>162</b>	<b>6</b>
B. NPC	NAPS	440	270	309	314	6.61	275	6.48	0.12
	RAPS- B	440	391	437	435	9.40	392	9.38	0.02
	RAPS- C	440	375	406	407	8.73	364	9.00	-0.27
	<b>Sub Total (B)</b>	<b>1320</b>	<b>1036</b>	<b>1152</b>	<b>1156</b>	<b>24.73</b>	<b>1031</b>	<b>24.86</b>	<b>-0.13</b>
C. NHPC	Chamera I HPS	540	534	540	540	13.00	542	12.82	0.18
	Chamera II HPS	300	301	310	304	7.27	303	7.22	0.05
	Chamera III HPS	231	229	235	231	5.51	230	5.50	0.01
	Bairasui HPS	180	171	180	180	3.54	148	3.58	-0.04
	Salal-HPS	690	663	671	671	16.06	669	15.91	0.15
	Tanakpur-HPS	94	48	41	45	0.99	41	1.15	-0.16
	Uri-HPS	480	475	477	474	11.52	480	11.40	0.12
	Uri-II HPS	240	240	247	241	5.79	241	5.76	0.03
	Dhauliganga-HPS	280	138	138	139	3.31	138	3.31	0.00
	Dulhasti-HPS	390	273	268	263	6.70	279	6.56	0.14
	Sewa-II HPS	120	119	130	122	2.50	104	2.47	0.03
	Parbati 3	390	261	273	261	6.30	262	6.27	0.03
	<b>Sub Total ©</b>	<b>3935</b>	<b>3453</b>	<b>3511</b>	<b>3472</b>	<b>82</b>	<b>3437</b>	<b>82</b>	<b>1</b>
D.SJVNL	NJPC	1500	1605	1605	1605	36.24	1510	36.33	-0.09
	Rampur HEP	275	186	292	217	4.59	191	4.70	-0.10
	<b>Sub Total (D)</b>	<b>1775</b>	<b>1791</b>	<b>1897</b>	<b>1822</b>	<b>40.83</b>	<b>1701</b>	<b>41.03</b>	<b>-0.20</b>
E. THDC	Tehri HPS	1000	729	736	302	7.37	307	7.30	0.07
	Koteshwar HPS	400	129	403	92	3.15	131	3.10	0.05
	<b>Sub Total (E)</b>	<b>1400</b>	<b>859</b>	<b>1139</b>	<b>394</b>	<b>10.51</b>	<b>438</b>	<b>10.40</b>	<b>0.11</b>
F. BBMB	Bhakra HPS	1514	953	1332	892	22.71	946	22.86	-0.16
	Dehar HPS	990	571	825	560	13.74	572	13.70	0.04
	Pong HPS	396	202	368	246	5.01	209	4.85	0.17
	<b>Sub Total (F)</b>	<b>2900</b>	<b>1725</b>	<b>2525</b>	<b>1698</b>	<b>41.45</b>	<b>1727</b>	<b>41.41</b>	<b>0.05</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	230	229	5.42	226	5.15	0.27
	KWHEP HPS(IPP)	1000	0	1200	1200	28.62	1192	28.51	0.11
	Malana Stg-II HPS	100	0	112	112	2.65	110	2.50	0.16
	Shree Cement TPS	300	0	263	202	5.43	226	5.48	-0.06
	Budhil HPS(IPP)	70	0	71	71	1.68	70	1.67	0.01
	<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1876</b>	<b>1814</b>	<b>43.80</b>	<b>1825</b>	<b>43.31</b>	<b>0.48</b>
<b>H. Total Regional Entities (A-G)</b>		<b>24289</b>	<b>18412</b>	<b>20345</b>	<b>16947</b>	<b>412.05</b>	<b>17169</b>	<b>404.74</b>	<b>7.30</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	1080	26.28	1095
	Guru Nanak Dev TPS(Bhatinda)	440	240	280	6.32	264
	Guru Hargobind Singh TPS(L.mbt)	920	512	503	12.91	538
	Goindwal(GVK)		0	0	0.00	0
	Rajpura	700	649	641	14.27	595
	Talwandi Saboo	660	0	0	0.00	0
	Thermal (Total)	<b>3980</b>	<b>2481</b>	<b>2504</b>	<b>59.78</b>	<b>2491</b>
	Total Hydro	1148	926	863	22.49	937
	<b>Total Punjab</b>	<b>5128</b>	<b>3407</b>	<b>3367</b>	<b>82.27</b>	<b>3428</b>
	Haryana	Panipat TPS	1367	436	606	10.50
DCRTPP (Yamuna nagar)		600	505	429	10.53	439
Faridabad GPS (NTPC)		432	0	0	0.00	0
RGTPP (khedar) (IPP)		1200	1083	740	19.27	803
Magnum Diesel (IPP)		25	0	0	0.00	0
Jhajjar(CLP)		1320	539	379	9.82	409
Thermal (Total)		4944	2563	2154	50.13	2089
Total Hydro		62	20	24	0.55	23
<b>Total Haryana</b>		<b>5006</b>	<b>2583</b>	<b>2178</b>	<b>50.67</b>	<b>2111</b>
Rajasthan		kota TPS	1240	880	857	20.25
	suratgarh TPS	1500	965	977	23.15	965
	Chabra TPS	750	327	353	8.14	339
	Dholpur GPS	330	0	0	0.00	0
	Ramgarh GPS	271	90	87	2.69	112
	RAPS A (NPC)	300	0	0	0.00	0
	Barsingsar (NLC)	250	97	96	2.15	90
	Giral LTPS	250	0	0	0.00	0
	Rajwest LTPS (IPP)	1080	477	431	13.17	549
	VSLP LTPS (IPP)	135	0	0	0.00	0
	Kalisindh Thermal	600	406	406	9.89	412
	Kawai(Adani)	1320	855	940	23.26	969
	Thermal (Total)	8026	4097	4147	103	4279
	Total Hydro	550	0	0	0.00	0
	Wind power	2798	686	248	8.66	361
	Biomass	99	33	33	0.79	33
	Solar	730	0	0	0.22	9
	Renewable/Others (Total)	3627	719	281	9.66	403
	<b>Total Rajasthan</b>	<b>12203</b>	<b>4816</b>	<b>4428</b>	<b>112.35</b>	<b>4681</b>
	UP	Anpara TPS	1630	902	932	21.60
Obra TPS		1288	527	489	12.60	525
Paricha TPS		1140	390	336	8.50	354
Panki TPS		210	135	131	3.00	125
Harduaganj TPS		665	403	366	9.20	383
Tanda TPS (NTPC)		440	381	234	7.70	321
Roza TPS (IPP)		1200	774	765	18.50	771
Anpara-C (IPP)		1200	1067	769	20.70	863
Bajaj Energy Pvt.Ltd(IPP) TPS		450	280	280	6.40	267
Thermal (Total)		8223	4859	4302	108.20	4508
Vishnuparyag HPS (IPP)		400	0	436	5.30	221
Other Hydro		527	123	96	2.60	108
Cogeneration		981	50	50	1.20	50
<b>Total UP</b>		<b>10131</b>	<b>5032</b>	<b>4884</b>	<b>117.30</b>	<b>4667</b>
Uttarakhand		Total Hydro	1303	358	769	16.37
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>358</b>	<b>769</b>	<b>16.37</b>	<b>682</b>
Delhi	Rajghat TPS	135	44	92	1.37	57
	Delhi Gas Turbine	282	111	1	1.20	50
	Pragati Gas Turbine	330	288	292	7.15	298
	Rithala GPS	95	0	0	0.00	0
	Bawana GPS	1370	-6	-9	0.00	0
	Badarpur TPS (NTPC)	705	475	490	12.76	532
	Thermal (Total)	2917	912	866	22.49	937
	<b>Total Delhi</b>	<b>2917</b>	<b>912</b>	<b>866</b>	<b>22.49</b>	<b>937</b>
HP	Baspa HPS (IPP)	300	330	300	7.67	319
	Malana HPS (IPP)	86	103	102	2.47	103
	Other Hydro	728	607	648	14.84	618
	<b>Total HP</b>	<b>1114</b>	<b>1040</b>	<b>1050</b>	<b>24.98</b>	<b>1041</b>
J & K	Baqilhar HPS (IPP)	450	436	438	10.51	438
	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>599</b>	<b>613</b>	<b>14.73</b>	<b>614</b>
<b>Total State Control Area Generation</b>		<b>38896</b>	<b>18747</b>	<b>18155</b>	<b>441.16</b>	<b>18161</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>4411</b>	<b>3382</b>	<b>94.40</b>	<b>3933</b>
<b>Total Regional Availability(Gross)</b>		<b>63186</b>	<b>43503</b>	<b>38484</b>	<b>947.60</b>	<b>39262</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	11302	10613	8927	211.98	8832
State Control Area Hydro	5589	3066	3415	87.02	3405
<b>Total Regional Hydro</b>	<b>16891</b>	<b>13679</b>	<b>12342</b>	<b>298.99</b>	<b>12237</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	-400	50	400	0.24	4.63	-4.39
Gwalior-Agra (D/C)	1886	1224	1967	0	33.83	0.00	33.83
Zerda-Kankroli	-98	-166	0	277	0.00	3.85	-3.85
Zerda-Bhinmal	-122	-165	18	326	0.00	3.05	-3.05
Malanpur-Auraiya	-90	-39	0	98	0.00	1.03	-1.03
Badod-Kota/Morak	-130	-169	0	216	0.00	1.92	-1.92
Mundra-Mohindergarh(HVDC)	2002	1502	2005	0	42.63	0.00	42.63
Vindhychal - Rihand	0	490	0	0	7.66	0.00	7.66
<b>Sub Total WR</b>	<b>3398</b>	<b>2277</b>			<b>84.36</b>	<b>14.48</b>	<b>69.88</b>
Pusaui Bypass	400	400	400	0	9.68	0.00	9.68
MZP- GKP (D/C)	320	488	520	0	8.61	0.00	8.61
Patna-Balia(D/C)	209	133	323	0	3.44	0.00	3.44
B'Sharif-Balia (D/C)	95	181	209	0	3.05	0.00	3.05
Pusaui-Balia	-88	-47	0	101	0.00	1.61	-1.61
Gaya-Fatehpur (765 Kv)	-48	-67	44	94	0.00	0.83	-0.83
Pusaui-Sahupuri	153	129	166	0	3.21	0.00	3.21
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-30	-30	0	36	0.00	0.71	-0.71
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	2	-82	96	114	0.00	0.31	-0.31
<b>Sub Total ER</b>	<b>1013</b>	<b>1105</b>			<b>27.98</b>	<b>3.47</b>	<b>24.52</b>
<b>Total IR Exch</b>	<b>4411</b>	<b>3382</b>			<b>112.34</b>	<b>17.94</b>	<b>94.40</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
23.61	3.71	27.32	8.93	10.74	-2.62	9.03	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
33.64	69.88	103.52	24.52	69.88	94.40	-9.12	0.00	-9.12

**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	0.23	1.27	10.00	45.71	59.78	18.28	10.83	1.11	0.00

Frequency (Hz)				Average Frequency Hz	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX (Hz)	MIN (Hz)
50.25	7.03	49.66	19.49	50.00	0.07	0.08	50.29	49.83

**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	410	04:58	403	12:51	0.0	0.0	0.0	0.0
Gorakhpur	400	414	07:04	399	19:45	0.0	0.0	0.0	0.0
Bareilly	400	422	05:07	403	19:50	0.0	0.0	1.9	0.0
Kanpur	400	426	05:09	407	19:43	0.0	0.0	20.6	0.0
Dadri	400	422	07:05	403	19:50	0.0	0.0	8.0	0.0
Ballabgarh	400	429	04:05	409	19:50	0.0	0.0	39.2	0.0
Bawana	400	422	07:05	404	19:49	0.0	0.0	8.0	0.0
Bassi	400	432	03:59	411	15:26	0.0	0.0	42.7	4.0
Hissar	400	416	04:02	399	19:49	0.0	0.0	0.0	0.0
Moga	400	416	04:13	404	10:29	0.0	0.0	0.0	0.0
Abdullapur	400	420	03:59	396	19:44	0.0	0.0	0.0	0.0
Nalagarh	400	419	03:59	394	13:47	0.0	0.0	0.0	0.0
Kishenpur	400	415	04:02	407	20:08	0.0	0.0	0.0	0.0
Wagoora	400	410	01:43	394	20:51	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	790	04:05	751	19:49	0.0	0.0	0.0	0.0
Balia	765	782	05:08	753	19:49	0.0	0.0	0.0	0.0
Moga	765	806	04:03	773	09:43	0.0	0.0	18.7	0.0
Agra	765	803	05:07	763	19:51	0.0	0.0	1.8	0.0
Bhiwani	765	808	04:02	775	19:50	0.0	0.0	29.4	0.0
Unnao	765	777	05:07	735	19:50	0.0	14.9	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	222	0	1341	0	0	32.55	4.32	36.87
Delhi	362	-36	-51	350	0	0	11.97	0.57	12.54
Haryana	1469	152	0	1060	32	0	32.22	2.42	34.63
HP	-927	-481	0	-877	-340	0	-19.57	-10.72	-30.29
J&K	-310	-39	0	-334	109	0	-9.87	-2.22	-12.09
CHD	0	20	0	0	0	0	0.33	0.49	0.82
Rajasthan	-758	247	2	-758	-40	0	-16.13	8.21	-7.92
UP	433	933	47	277	433	0	8.20	8.31	16.51
Uttarakhand	-5	110	0	-5	182	0	-0.12	2.90	2.78
<b>Total</b>	<b>1652</b>	<b>1128</b>	<b>-2</b>	<b>1054</b>	<b>376</b>	<b>0</b>	<b>39.57</b>	<b>14.28</b>	<b>53.85</b>

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	1389	1339	253	0	0	0
Delhi	834	313	535	-325	0	-51
Haryana	1469	1009	177	-252	0	0
HP	-725	-927	-340	-494	0	0
J&K	-310	-598	109	-299	0	0
CHD	41	0	49	0	0	0
Rajasthan	-463	-758	755	-41	2	0
UP	496	256	933	0	47	0
Uttarakhand	-5	-5	190	102	0	0

**XI. System Constraints:****XII. Grid Disturbance / Any Other Significant Event:****XIII. Weather Conditions For 18.07.2014 :**

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 :**