

# पावर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 19.08.2014  
Date of Reporting : 20.08.2014

### I. Regional Availability/Demand:

Demand Met	Evening Peak (20:00 Hrs) MW			Off Peak (03:00 Hrs) MW			Day Energy (Net MU)		
	Shortage	Requirement	Freq* (Hz)	Demand Met	Shortage	Requirement	Freq* (Hz)	Demand Met	Shortage
43769	5176	48945	49.82	42737	3875	46612	49.89	1068.4	113.59

\* 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	79.37	20.72	-149	1453	8516	113.09	213.19	12.73	
Haryana	99.83	0.59	-43	1441	105.40	104.65	205.08	0.83	
Rajasthan	126.94	0.00	17.27	144.21	42.62	45.37	189.58	5.05	
Delhi	29.92			29.92	79.11	80.06	109.98	0.93	
UP	114.80	15.80	0.40	131.00	120.39	123.31	254.31	88.39	
Uttarakhand		18.47		18.47	16.81	16.29	34.76	3.97	
HP		25.51		25.51	-1.14	-0.58	24.92	0.00	
J & K		13.49	0.00	13.49	15.62	17.01	30.50	1.70	
Chandigarh				0.00	5.42	6.13	6.13	0.00	
<b>Total</b>	<b>450.87</b>	<b>94.58</b>	<b>17.67</b>	<b>563.11</b>	<b>497.97</b>	<b>505.33</b>	<b>1068.45</b>	<b>113.59</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	8508	0	-149	1453	8516	0	40	1480	8756
Haryana	8408	0	-43	1441	7936	0	-4	1338	8554
Rajasthan	7559	1432	217	-881	7352	40	110	-508	7885
Delhi	4856	9	26	380	4214	0	-82	193	5135
UP	9813	3475	-111	364	11135	3835	20	1500	11760
Uttarakhand	1557	155	-35	84	1437	0	-12	84	1627
HP	1227	5	100	-1314	938	0	37	-1467	1227
J&K	1556	100	165	-367	1001	0	95	-812	1556
Chandigarh	285	0	52	0	209	0	12	0	320
<b>Total</b>	<b>43769</b>	<b>5176</b>	<b>222</b>	<b>1162</b>	<b>42737</b>	<b>3875</b>	<b>215</b>	<b>1809</b>	<b>44205</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 (Gross)	Off Peak MW (Gross)	Energy (Net MU)	Average Sentout(MW)	Schedule Net MU	UI Net MU
Rihand I STPS	1000	421	467	461	10.21	425	10.10	0.10	
Rihand II STPS	1000	950	1045	1041	23.50	979	22.80	0.70	
Rihand III STPS	1000	464	500	508	11.09	462	11.14	-0.05	
Dadri I STPS	840	814	807	810	20.88	870	19.53	1.36	
Dadri II STPS	980	470	456	478	11.80	492	11.24	0.56	
Unchahar I TPS	420	393	218	218	5.23	218	9.36	-4.13	
Unchahar II TPS	420	400	439	441	10.46	436	9.54	0.92	
Unchahar III TPS	210	198	218	216	5.20	216	4.72	0.48	
ISTPP (Jhajjar)	1500	1235	708	902	19.23	801	22.61	-3.38	
Dadri GPS	830	787	575	538	16.13	672	4.77	11.37	
Anta GPS	419	393	291	392	8.91	371	0.02	8.90	
Auraiya GPS	663	636	152	196	3.45	144	3.60	-0.15	
Dadri Solar	5	1	0	0	0.02	1	0.03	-0.01	
Unchahar Solar	10	3	0	0	0.02	1	0.07	-0.04	
<b>Sub Total (A)</b>	<b>11297</b>	<b>8414</b>	<b>7497</b>	<b>7726</b>	<b>184</b>	<b>7676</b>	<b>160</b>	<b>25</b>	
B. NPC	NAPS	440	271	306	300	6.41	267	6.50	-0.10
RAPS- B	440	200	228	225	4.81	200	4.80	0.01	
RAPS- C	440	370	410	411	8.73	364	8.88	-0.15	
<b>Sub Total (B)</b>	<b>1320</b>	<b>841</b>	<b>944</b>	<b>936</b>	<b>19.95</b>	<b>831</b>	<b>20.18</b>	<b>-0.23</b>	
C. NHPC	Chamera I HPS	540	534	549	0	6.78	282	7.50	-0.72
Chamera II HPS	300	300	303	302	5.65	235	7.20	-1.55	
Chamera III HPS	231	229	234	230	4.20	175	4.70	-0.50	
Bairasui HPS	180	178	123	79	1.87	78	2.08	-0.20	
Salal-HPS	690	662	670	671	16.00	667	15.89	0.11	
Tanakpur-HPS	94	75	87	90	1.87	78	1.81	0.06	
Uri-HPS	480	326	464	416	10.71	446	7.88	2.83	
Uri-II HPS	240	215	241	241	5.75	239	5.18	0.57	
Dhauliganga-HPS	280	207	209	210	4.90	204	4.97	-0.07	
Dulhasti-HPS	390	386	395	396	9.33	389	9.26	0.07	
Sewa-II HPS	120	119	129	18	0.87	36	1.10	-0.23	
Parbati 3	520	261	133	132	3.16	131	3.44	-0.29	
<b>Sub Total ©</b>	<b>4065</b>	<b>3493</b>	<b>3537</b>	<b>2784</b>	<b>71</b>	<b>2962</b>	<b>71</b>	<b>0</b>	
D.SJVNL	NJPC	1500	1605	1605	1605	38.56	1607	38.52	0.04
Rampur HEP	275	280	353	293	7.15	298	6.72	0.43	
<b>Sub Total (D)</b>	<b>1775</b>	<b>1885</b>	<b>1958</b>	<b>1898</b>	<b>45.71</b>	<b>1905</b>	<b>45.24</b>	<b>0.47</b>	
E. THDC	Tehri HPS	1000	1032	1049	505	9.62	401	24.10	-14.48
Koteshwar HPS	400	400	387	91	3.47	144	8.83	-5.36	
<b>Sub Total (E)</b>	<b>1400</b>	<b>1432</b>	<b>1436</b>	<b>596</b>	<b>13.08</b>	<b>545</b>	<b>32.93</b>	<b>-19.84</b>	
F. BBMB	Bhakra HPS	1514	1241	1343	1089	29.54	1231	29.79	-0.25
Dehar HPS	990	563	660	560	14.15	589	13.52	0.63	
Pong HPS	396	56	324	0	3.47	144	1.34	2.12	
<b>Sub Total (F)</b>	<b>2900</b>	<b>1861</b>	<b>2327</b>	<b>1649</b>	<b>47.16</b>	<b>1965</b>	<b>44.66</b>	<b>2.50</b>	
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	115	95	2.46	103	3.91	-1.45
KWHEP HPS(IPP)	1000	0	1200	970	25.01	1042	28.08	-3.08	
Malana Stg-II HPS	100	0	104	70	1.65	69	2.08	-0.43	
Shree Cement TPS	300	0	148	149	3.53	147	3.37	0.16	
Budhil HPS(IPP)	70	0	64	40	1.12	47	1.41	-0.30	
<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1631</b>	<b>1324</b>	<b>33.77</b>	<b>1407</b>	<b>38.86</b>	<b>-5.09</b>	
<b>H. Total Regional Entities (A-G)</b>	<b>24419</b>	<b>17926</b>	<b>19330</b>	<b>16913</b>	<b>414.99</b>	<b>17291</b>	<b>412.38</b>	<b>2.61</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	1050	960	22.59	941
	Guru Nanak Dev TPS(Bhatinda)	440	448	355	9.46	394
	Guru Hargobind Singh TPS(L.mbt)	920	922	941	20.36	848
	Goindwal(GVK)		0	0	0.00	0
	Rajpura	1400	1194	1187	26.96	1124
	Talwandi Saboo	660	0	0	0.00	0
	Thermal (Total)	<b>4680</b>	<b>3614</b>	<b>3443</b>	<b>79.37</b>	<b>3307</b>
	Total Hydro	1148	895	798	20.72	863
	<b>Total Punjab</b>	<b>5828</b>	<b>4509</b>	<b>4241</b>	<b>100.09</b>	<b>4171</b>
	Haryana	Panipat TPS	1367	1146	1158	26.80
DCRTPP (Yamuna nagar)		600	528	551	12.46	519
Faridabad GPS (NTPC)		432	178	179	4.27	178
RGTPP (khedar) (IPP)		1200	1173	1155	26.64	1110
Magnum Diesel (IPP)		25	0	0	0.00	0
Jhajjar(CLP)		1320	1233	1232	29.66	1236
Thermal (Total)		4944	4258	4275	99.83	4160
Total Hydro		62	23	25	0.59	25
<b>Total Haryana</b>		<b>5006</b>	<b>4281</b>	<b>4300</b>	<b>100.42</b>	<b>4184</b>
Rajasthan		kota TPS	1240	1045	999	23.93
	suratgarh TPS	1500	853	1069	25.16	1048
	Chabra TPS	750	197	197	4.85	202
	Dholpur GPS	330	112	112	2.77	116
	Ramgarh GPS	271	123	118	3.20	133
	RAPS A (NPC)	300	0	0	0.00	0
	Barsingar (NLC)	250	98	97	2.11	88
	Giral LTPS	250	68	68	1.51	63
	Rajwest LTPS (IPP)	1080	783	884	22.87	953
	VSLP LTPS (IPP)	135	0	0	0.00	0
	Kalisindh Thermal	600	495	495	12.28	512
	Kawai(Adani)	1320	1059	1087	28.25	1177
	Thermal (Total)	8026	4833	5126	127	5289
	Total Hydro	550	0	0	0.00	0
	Wind power	2798	615	821	16.03	668
	Biomass	99	36	36	0.86	36
	Solar	730	0	0	0.38	16
	Renewable/Others (Total)	3627	651	857	17.27	720
	<b>Total Rajasthan</b>	<b>12203</b>	<b>5484</b>	<b>5983</b>	<b>144.21</b>	<b>6009</b>
	UP	Anpara TPS	1630	868	837	20.30
Obra TPS		1288	446	464	11.10	463
Paricha TPS		1140	770	773	17.70	738
Panki TPS		210	135	140	3.10	129
Harduaganj TPS		665	424	431	10.20	425
Tanda TPS (NTPC)		440	373	360	9.00	375
Roza TPS (IPP)		1200	804	702	18.10	754
Anpara-C (IPP)		1200	869	860	20.60	858
Bajaj Energy Pvt.Ltd(IPP) TPS		450	162	243	4.70	196
Thermal (Total)		8223	4851	4810	114.80	4783
Vishnuparyag HPS (IPP)		400	436	326	9.30	388
Other Hydro		527	263	299	6.50	271
Cogeneration		981	15	15	0.40	17
<b>Total UP</b>		<b>10131</b>	<b>5565</b>	<b>5450</b>	<b>131.00</b>	<b>5071</b>
Uttarakhand		Total Hydro	1303	860	686	18.47
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>860</b>	<b>686</b>	<b>18.47</b>	<b>769</b>
Delhi	Rajghat TPS	135	46	48	1.11	46
	Delhi Gas Turbine	282	102	106	2.50	104
	Pragati Gas Turbine	330	281	281	6.83	285
	Rithala GPS	95	0	0	0.00	0
	Bawana GPS	1370	478	480	11.99	500
	Badarpur TPS (NTPC)	705	307	299	7.50	312
	Thermal (Total)	2917	1214	1214	29.92	1247
	<b>Total Delhi</b>	<b>2917</b>	<b>1214</b>	<b>1214</b>	<b>29.92</b>	<b>1247</b>
HP	Baspa HPS (IPP)	300	330	330	7.92	330
	Malana HPS (IPP)	86	72	72	1.59	66
	Other Hydro	728	649	652	16.00	666
<b>Total HP</b>	<b>1114</b>	<b>1051</b>	<b>1054</b>	<b>25.51</b>	<b>1063</b>	
J & K	Baglihar HPS (IPP)	450	438	438	10.35	431
	Other Hydro/IPP	436	128	128	3.14	131
	Gas/Diesel/Others	209	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>1094</b>	<b>566</b>	<b>566</b>	<b>13.49</b>	<b>562</b>
<b>Total State Control Area Generation</b>		<b>39596</b>	<b>23530</b>	<b>23494</b>	<b>563.11</b>	<b>23076</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>5164</b>	<b>7622</b>	<b>136.28</b>	<b>5678</b>
<b>Total Regional Availability(Gross)</b>		<b>64016</b>	<b>48024</b>	<b>48029</b>	<b>1114.38</b>	<b>46045</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	11432	10677	8062	206.17	8590
State Control Area Hydro	5589	3658	3428	94.58	3553
<b>Total Regional Hydro</b>	<b>17021</b>	<b>14335</b>	<b>11490</b>	<b>300.74</b>	<b>12143</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	500	500	50	9.06	0.06	9.00
Gwalior-Agra (D/C)	2063	2408	2408	0	41.04	0.00	41.04
Zerda-Kankroli	22	53	53	185	0.00	1.17	-1.17
Zerda-Bhinmal	14	78	97	190	0.00	0.51	-0.51
Malanpur-Auraiya	-30	-49	0	47	0.00	1.58	-1.58
Badod-Kota/Morak	-33	13	45	137	0.00	0.80	-0.80
Mundra-Mohindergarh(HVDC)	1998	2205	2205	0	51.92	0.00	51.92
Vindhychal - Rihand	335	380	393	0	8.51	0.00	8.51
<b>Sub Total WR</b>	<b>4419</b>	<b>5588</b>			<b>110.54</b>	<b>4.12</b>	<b>106.41</b>
Pusaali Bypass	-284	-167	0	430	0.00	5.96	-5.96
MZP- GKP (D/C)	376	870	870	0	13.63	0.00	13.63
Patna-Balia(D/C)	123	414	414	0	5.32	0.00	5.32
B'Sharif-Balia (D/C)	257	404	404	0	7.19	0.00	7.19
Pusaali-Balia	39	23	57	0	0.62	0.00	0.62
Gaya-Fatehpur (765 Kv)	-4	50	140	66	0.33	0.00	0.33
Pusaali-Sahupuri	89	80	196	0	3.18	0.00	3.18
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-33	-46	0	47	0.00	0.96	-0.96
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	182	406	406	0	6.51	0.00	6.51
<b>Sub Total ER</b>	<b>745</b>	<b>2034</b>			<b>36.78</b>	<b>6.91</b>	<b>29.87</b>
<b>Total IR Exch</b>	<b>5164</b>	<b>7622</b>			<b>147.32</b>	<b>11.03</b>	<b>136.28</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
28.09	3.89	31.97	11.12	2.75	-0.93	-12.24	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
42.16	58.17	100.33	29.87	106.41	136.28	-12.29	48.25	35.95

**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	26.06	60.17	90.82	98.27	8.60	0.58	0.00	0.00	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			
50.09	6.03	49.46	9.10	49.77	0.64	0.10	50.06	0.00

**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	19:57	403	02:14	0.0	0.0	0.0	0.0
Gorakhpur	400	410	06:04	392	02:13	0.0	0.0	0.0	0.0
Bareilly	400	414	06:03	396	02:11	0.0	0.0	0.0	0.0
Kanpur	400	418	06:04	405	00:13	0.0	0.0	0.0	0.0
Dadri	400	413	06:04	397	14:39	0.0	0.0	0.0	0.0
Ballabgarh	400	420	06:01	402	14:45	0.0	0.0	0.0	0.0
Bawana	400	416	06:01	400	14:46	0.0	0.0	0.0	0.0
Bassi	400	424	06:00	410	13:58	0.0	0.0	5.8	0.0
Hissar	400	408	06:00	393	14:45	0.0	0.0	0.0	0.0
Moga	400	414	06:00	403	12:21	0.0	0.0	0.0	0.0
Abdullapur	400	411	06:03	396	11:46	0.0	0.0	0.0	0.0
Nalagarh	400	414	05:59	400	14:38	0.0	0.0	0.0	0.0
Kishenpur	400	417	02:47	408	12:22	0.0	0.0	0.0	0.0
Wagoora	400	411	02:37	396	19:47	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	774	06:04	746	00:14	0.0	0.0	0.0	0.0
Balia	765	771	06:04	738	12:22	0.0	2.2	0.0	0.0
Moga	765	795	18:06	774	12:45	0.0	0.0	0.0	0.0
Agra	765	790	06:03	757	14:48	0.0	0.0	0.0	0.0
Bhiwani	765	794	06:03	764	14:46	0.0	0.0	0.0	0.0
Unnao	765	761	18:59	740	00:13	0.0	1.2	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	509.78	1545.02	509.83	1545.02	846.73	907.36
Pong	426.72	384.05	416.28	730.66	422.05	990.81	255.64	210.99
Tehri	829.79	740.04	813.40	871.00	819.85	1000.00	337.63	220.00
Koteshwar	612.50	598.50	610.80	4.97	610.85	4.97	220.00	230.00
Chamera-I	760.00	748.75	750.68	0.00	0.00	0.00	194.19	232.90
Rihand	268.22	252.98	855.10	273.10	851.30	276.40	0.00	0.00
RPS	352.80	343.81	1155.00	0.00	1155.76	3.49	0.00	0.00
Jawahar Sagar	298.70	295.78	0.00	0.00	1310.71	2.21	0.00	0.00
RSD	527.91	487.91	515.85	11.51	524.14	10.80	245.96	486.65

\* 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	1470	10	0	1453	0	0	34.74	0.96	35.70
Delhi	320	-76	-51	431	0	-51	9.33	-1.71	7.61
Haryana	1364	-25	0	1367	75	0	32.76	-9.17	23.59
HP	-1197	-270	0	-994	-319	0	-25.16	-6.36	-31.52
J&K	-683	-129	0	-438	71	0	-11.57	-1.56	-13.13
CHD	0	0	0	0	0	0	0.24	0.29	0.53
Rajasthan	-836	325	4	-822	-58	0	-19.77	4.99	-14.78
UP	820	638	41	319	0	45	10.75	4.02	14.77
Uttarakhand	84	0	0	84	0	0	2.02	0.00	2.02
<b>Total</b>	<b>1342</b>	<b>473</b>	<b>-6</b>	<b>1400</b>	<b>-232</b>	<b>-6</b>	<b>33.33</b>	<b>-8.54</b>	<b>24.79</b>

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	1483	1410	245	0	0	0
Delhi	431	296	289	-473	-7	-51
Haryana	1367	1363	122	-1038	0	0
HP	-969	-1197	-215	-365	0	0
J&K	-378	-683	71	-275	0	0
CHD	29	0	44	0	0	0
Rajasthan	-743	-841	573	-60	4	0
UP	820	271	638	0	45	0
Uttarakhand	84	84	0	0	0	0

**XI. System Constraints:****XII. Grid Disturbance / Any Other Significant Event:****XIII. Weather Conditions For 19.08.2014 :**

1. Normal weather 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 :**