

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पारदर्शित की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 17.08.2014  
Date of Reporting : 18.08.2014

### 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
42007	2345	44352	49.91	40568	3350	43918	50.09	972.0	60.73

\* 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	58.64	16.72		75.36	124.27	123.34	-0.93	198.69	0.00
Haryana	65.65	0.51		66.15	107.34	105.90	-1.44	172.06	0.00
Rajasthan	116.17	2.70	7.84	126.70	43.18	44.82	1.64	171.52	0.76
Delhi	25.14			25.14	67.25	65.45	-1.80	90.59	0.05
UP	99.00	15.90	0.36	115.26	134.12	138.07	3.95	253.33	58.09
Uttarakhand		16.98		16.98	16.19	16.19	0.00	33.17	0.12
HP		26.40		26.40	-2.89	-3.35	-0.45	23.05	0.00
J & K		13.59	0.00	13.59	14.25	11.05	-3.20	24.64	1.70
Chandigarh				0.00	5.24	4.93	-0.31	4.93	0.00
<b>Total</b>	<b>364.59</b>	<b>92.79</b>	<b>8.20</b>	<b>465.58</b>	<b>508.94</b>	<b>506.40</b>	<b>-2.54</b>	<b>971.98</b>	<b>60.73</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	8555	0	-11	1487	8297	0	-11	1900	8951
Haryana	7851	0	-198	1669	7470	0	-113	1708	7985
Rajasthan	6736	0	-201	-684	7116	0	253	-460	7646
Delhi	3963	0	78	287	3774	0	-179	113	4525
UP	10469	2190	-200	906	11077	3350	143	1157	11490
Uttarakhand	1615	55	90	85	1248	0	-183	85	1615
HP	971	0	-105	-1407	835	0	79	-1428	1093
J&K	1618	100	207	-358	558	0	-318	-783	1618
Chandigarh	230	0	6	0	193	0	-17	0	244
<b>Total</b>	<b>42007</b>	<b>2345</b>	<b>-334</b>	<b>1984</b>	<b>40568</b>	<b>3350</b>	<b>-346</b>	<b>2291</b>	<b>43672</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	1272	1371	1411	33.45	1394	30.53	2.93
	Rihand I STPS	1000	420	461	420	9.88	412	9.67	0.22
	Rihand II STPS	1000	950	1026	953	22.26	928	21.90	0.36
	Rihand III STPS	1000	450	493	450	10.47	436	10.33	0.13
	Dadri I STPS	840	813	809	608	18.11	755	17.13	0.98
	Dadri II STPS	980	480	466	367	10.23	426	10.10	0.13
	Unchahar I TPS	420	394	423	331	9.88	412	8.99	0.90
	Unchahar II TPS	420	400	422	318	9.62	401	8.74	0.88
	Unchahar III TPS	210	198	207	153	4.59	191	4.18	0.41
	ISTPP (Jhajjar)	1500	1414	893	809	20.30	846	21.26	-0.96
	Dadri GPS	830	788	181	187	4.33	180	4.44	-0.11
	Anta GPS	419	394	0	205	1.32	55	1.33	-0.01
	Auraiya GPS	663	635	144	158	3.71	155	3.63	0.08
	Dadri Solar	5	1	0	0	0.02	1	0.03	-0.01
	Unchahar Solar	10	3	0	0	0.02	1	0.07	-0.05
	<b>Sub Total (A)</b>	<b>11297</b>	<b>8613</b>	<b>6896</b>	<b>6370</b>	<b>158</b>	<b>6591</b>	<b>152</b>	<b>6</b>
B. NPC	NAPS	440	272	308	315	6.49	271	6.53	-0.04
	RAPS- B	440	200	225	227	4.80	200	4.80	0.00
	RAPS- C	440	370	406	410	8.74	364	8.88	-0.14
	<b>Sub Total (B)</b>	<b>1320</b>	<b>842</b>	<b>939</b>	<b>952</b>	<b>20.04</b>	<b>835</b>	<b>20.21</b>	<b>-0.17</b>
C. NHPC	Chamera I HPS	540	534	541	536	12.95	539	12.82	0.13
	Chamera II HPS	300	300	305	304	7.07	294	7.00	0.07
	Chamera III HPS	231	229	227	233	5.16	215	5.10	0.06
	Bairasui HPS	180	178	120	120	2.95	123	2.94	0.01
	Salal-HPS	690	652	676	674	15.97	666	15.65	0.32
	Tanakpur-HPS	94	82	86	60	2.00	83	1.98	0.02
	Uri-HPS	480	298	403	304	7.55	315	7.16	0.39
	Uri-II HPS	240	185	239	205	4.73	197	4.45	0.28
	Dhauliganga-HPS	280	207	208	208	4.97	207	4.97	0.00
	Dulhasti-HPS	390	386	400	398	9.34	389	9.26	0.07
	Sewa-II HPS	120	119	127	126	2.93	122	2.86	0.07
	Parbati 3	520	261	271	262	4.49	187	4.44	0.06
	<b>Sub Total ©</b>	<b>4065</b>	<b>3432</b>	<b>3602</b>	<b>3430</b>	<b>80</b>	<b>3337</b>	<b>79</b>	<b>1</b>
D.SJVNL	NJPC	1500	1605	1617	1614	38.51	1605	38.52	-0.01
	Rampur HEP	275	350	361	364	8.72	363	8.40	0.32
	<b>Sub Total (D)</b>	<b>1775</b>	<b>1955</b>	<b>1978</b>	<b>1978</b>	<b>47.23</b>	<b>1968</b>	<b>46.92</b>	<b>0.31</b>
E. THDC	Tehri HPS	1000	1032	1040	1002	24.19	1008	24.00	0.19
	Koteshwar HPS	400	400	402	401	9.21	384	9.20	0.01
	<b>Sub Total (E)</b>	<b>1400</b>	<b>1432</b>	<b>1442</b>	<b>1403</b>	<b>33.40</b>	<b>1392</b>	<b>33.20</b>	<b>0.20</b>
F. BBMB	Bhakra HPS	1514	1264	1338	1247	30.60	1275	30.33	0.27
	Dehar HPS	990	569	660	560	14.10	587	13.65	0.45
	Pong HPS	396	56	192	0	1.37	57	1.34	0.02
	<b>Sub Total (F)</b>	<b>2900</b>	<b>1888</b>	<b>2190</b>	<b>1807</b>	<b>46.06</b>	<b>1919</b>	<b>45.32</b>	<b>0.74</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	154	168	3.73	155	4.46	-0.74
	KWHEP HPS(IPP)	1000	0	1200	1200	28.57	1190	28.51	0.05
	Malana Stg-II HPS	100	0	112	112	2.24	93	2.19	0.05
	Shree Cement TPS	300	0	131	138	2.87	119	2.85	0.02
	Budhil HPS(IPP)	70	0	49	70	1.46	61	1.66	-0.20
	<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1646</b>	<b>1688</b>	<b>38.86</b>	<b>1619</b>	<b>39.67</b>	<b>-0.82</b>
<b>H. Total Regional Entities (A-G)</b>		<b>24419</b>	<b>18162</b>	<b>18692</b>	<b>17628</b>	<b>423.88</b>	<b>17662</b>	<b>416.26</b>	<b>7.62</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	800	850	18.87	786
	Guru Nanak Dev TPS(Bhatinda)	440	375	353	7.77	324
	Guru Hargobind Singh TPS(L.mbt)	920	741	709	16.63	693
	Goindwal(GVK)		0	0	0.00	0
	Rajpura	1400	696	688	15.37	640
	Talwandi Saboo	660	0	0	0.00	0
	Thermal (Total)	<b>4680</b>	<b>2612</b>	<b>2600</b>	<b>58.64</b>	<b>2443</b>
	Total Hydro	1148	764	615	16.72	697
	<b>Total Punjab</b>	<b>5828</b>	<b>3376</b>	<b>3215</b>	<b>75.36</b>	<b>3140</b>
	Haryana	Panipat TPS	1367	215	213	5.01
DCRTPP (Yamuna nagar)		600	512	526	11.69	487
Faridabad GPS (NTPC)		432	170	168	4.16	173
RGTPP (khedar) (IPP)		1200	1150	1035	24.77	1032
Magnum Diesel (IPP)		25	0	0	0.00	0
Jhajjar(CLP)		1320	1077	740	20.02	834
Thermal (Total)		4944	3124	2682	65.65	2735
Total Hydro		62	22	17	0.51	21
<b>Total Haryana</b>		<b>5006</b>	<b>3146</b>	<b>2699</b>	<b>66.15</b>	<b>2756</b>
Rajasthan		kota TPS	1240	1000	993	21.96
	suratgarh TPS	1500	1025	1114	26.02	1084
	Chabra TPS	750	382	319	7.54	314
	Dholpur GPS	330	124	13	1.70	71
	Ramgarh GPS	271	42	0	1.24	52
	RAPS A (NPC)	300	160	160	4.24	177
	Barsingsar (NLC)	250	188	190	3.99	166
	Giral LTPS	250	0	62	1.24	51
	Rajwest LTPS (IPP)	1080	598	856	21.11	880
	VSLP LTPS (IPP)	135	0	0	0.00	0
	Kalisindh Thermal	600	414	352	9.59	400
	Kawai(Adani)	1320	1125	513	17.55	731
	Thermal (Total)	8026	5058	4572	116	4840
	Total Hydro	550	0	150	2.70	112
	Wind power	2798	45	766	7.00	291
	Biomass	99	21	21	0.50	21
	Solar	730	0	0	0.35	14
	Renewable/Others (Total)	3627	66	787	7.84	327
	<b>Total Rajasthan</b>	<b>12203</b>	<b>5124</b>	<b>5509</b>	<b>126.70</b>	<b>5279</b>
	UP	Anpara TPS	1630	763	427	14.10
Obra TPS		1288	414	307	8.60	358
Paricha TPS		1140	697	697	16.60	692
Panki TPS		210	72	77	1.60	67
Harduaganj TPS		665	428	418	9.90	413
Tanda TPS (NTPC)		440	278	265	6.70	279
Roza TPS (IPP)		1200	648	648	15.50	646
Anpara-C (IPP)		1200	806	802	19.40	808
Bajaj Energy Pvt.Ltd(IPP) TPS		450	284	283	6.60	275
Thermal (Total)		8223	4390	3924	99.00	4125
Vishnuparyag HPS (IPP)		400	436	436	10.40	433
Other Hydro		527	250	308	5.50	229
Cogeneration		981	15	15	0.36	15
<b>Total UP</b>		<b>10131</b>	<b>5091</b>	<b>4683</b>	<b>115.26</b>	<b>4369</b>
Uttarakhand		Total Hydro	1303	772	680	16.98
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>772</b>	<b>680</b>	<b>16.98</b>	<b>708</b>
Delhi	Rajghat TPS	135	45	86	1.45	60
	Delhi Gas Turbine	282	74	75	1.73	72
	Pragati Gas Turbine	330	261	148	5.97	249
	Rithala GPS	95	0	0	0.00	0
	Bawana GPS	1370	241	291	6.61	276
	Badarpur TPS (NTPC)	705	366	387	9.38	391
	Thermal (Total)	2917	987	987	25.14	1047
	<b>Total Delhi</b>	<b>2917</b>	<b>987</b>	<b>987</b>	<b>25.14</b>	<b>1047</b>
HP	Baspa HPS (IPP)	300	329	329	7.65	319
	Malana HPS (IPP)	86	93	104	2.29	95
	Other Hydro	728	803	510	16.46	686
	<b>Total HP</b>	<b>1114</b>	<b>1225</b>	<b>943</b>	<b>26.40</b>	<b>1100</b>
J & K	Baqilhar HPS (IPP)	450	442	436	10.45	435
	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>570</b>	<b>564</b>	<b>13.59</b>	<b>566</b>
<b>Total State Control Area Generation</b>		<b>39596</b>	<b>20291</b>	<b>19280</b>	<b>465.58</b>	<b>18966</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>5423</b>	<b>4831</b>	<b>122.30</b>	<b>5096</b>
<b>Total Regional Availability(Gross)</b>		<b>64016</b>	<b>44406</b>	<b>41739</b>	<b>1011.76</b>	<b>41723</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	11432	10677	10098	241.32	10055
State Control Area Hydro	5589	3603	3277	92.79	3433
<b>Total Regional Hydro</b>	<b>17021</b>	<b>14280</b>	<b>13375</b>	<b>334.11</b>	<b>13488</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	-500	250	250	500	0.91	8.21	-7.30
Gwalior-Agra (D/C)	1773	921	2050	0	27.18	0.00	27.18
Zerda-Kankroli	17	-218	50	252	0.00	2.71	-2.71
Zerda-Bhinmal	65	-188	228	116	1.33	0.00	1.33
Malanpur-Auraiya	-86	-109	0	118	0.00	1.72	-1.72
Badod-Kota/Morak	-32	-166	0	166	0.00	2.32	-2.32
Mundra-Mohindergarh(HVDC)	2001	2196	2204	0	49.93	0.00	49.93
Vindhychal - Rihand	382	389	479	0	9.31	0.00	9.31
<b>Sub Total WR</b>	<b>3620</b>	<b>3075</b>			<b>88.65</b>	<b>14.96</b>	<b>73.69</b>
Pusaui Bypass	220	53	220	22	2.03	0.00	2.03
MZP- GKP (D/C)	640	676	860	0	16.48	0.00	16.48
Patna-Balia(D/C)	255	342	501	0	9.84	0.00	9.84
B'Sharif-Balia (D/C)	226	263	484	0	8.78	0.00	8.78
Pusaui-Balia	13	-4	55	0	0.07	0.00	0.07
Gaya-Fatehpur (765 Kv)	113	123	209	0	3.38	0.00	3.38
Pusaui-Sahupuri	142	146	185	0	3.48	0.00	3.48
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-40	-36	0	43	0.00	0.86	-0.86
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	234	193	286	0	5.41	0.00	5.41
<b>Sub Total ER</b>	<b>1803</b>	<b>1756</b>			<b>49.46</b>	<b>0.86</b>	<b>48.61</b>
<b>Total IR Exch</b>	<b>5423</b>	<b>4831</b>			<b>138.11</b>	<b>15.81</b>	<b>122.30</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
25.94	3.85	29.79	10.59	10.97	5.00	-1.05	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
45.38	66.72	112.10	48.61	73.69	122.30	3.22	6.98	10.20

**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	3.21	10.61	31.92	71.94	55.56	6.74	4.65	0.64	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			
50.23	6.04	49.53	19.12	49.94	0.16	0.11	50.23	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	410	06:04	402	00:54	0.0	0.0	0.0	0.0
Gorakhpur	400	411	06:04	391	00:58	0.0	0.0	0.0	0.0
Bareilly	400	415	06:05	395	23:05	0.0	0.0	0.0	0.0
Kanpur	400	416	06:04	399	23:02	0.0	0.0	0.0	0.0
Dadri	400	412	06:02	400	01:40	0.0	0.0	0.0	0.0
Ballabgarh	400	420	07:55	402	22:44	0.0	0.0	0.0	0.0
Bawana	400	419	06:43	401	22:44	0.0	0.0	0.0	0.0
Bassi	400	426	04:01	408	23:05	0.0	0.0	44.2	0.0
Hissar	400	408	18:02	394	11:39	0.0	0.0	0.0	0.0
Moga	400	414	06:04	405	23:03	0.0	0.0	0.0	0.0
Abdullapur	400	412	07:58	396	19:23	0.0	0.0	0.0	0.0
Nalagarh	400	414	05:06	404	11:40	0.0	0.0	0.0	0.0
Kishenpur	400	418	18:00	409	10:45	0.0	0.0	0.0	0.0
Wagoora	400	410	18:00	395	20:16	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	772	06:05	735	23:05	0.0	4.3	0.0	0.0
Balia	765	774	06:04	734	23:04	0.0	8.9	0.0	0.0
Moga	765	797	17:05	776	23:06	0.0	0.0	0.0	0.0
Agra	765	790	18:03	753	23:03	0.0	0.0	0.0	0.0
Bhiwani	765	795	18:03	765	23:03	0.0	0.0	0.0	0.0
Unnao	765	764	06:03	730	00:59	0.0	4.4	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	509.49	1530.03	507.34	1411.35	1283.57	952.92
Pong	426.72	384.05	415.23	680.86	421.22	946.20	1184.92	83.85
Tehri	829.79	740.04	811.85	840.00	818.95	982.00	666.07	557.00
Koteshwar	612.50	598.50	610.96	4.95	610.15	4.69	557.00	611.00
Chamera-I	760.00	748.75	750.92	15.01	753.74	37.84	274.00	350.00
Rihand	268.22	252.98	856.00	355.50	847.40	215.30	0.00	0.00
RPS	352.80	343.81	1155.21	1.47	0.00	3.73	6216.00	6291.00
Jawahar Sagar	298.70	295.78	1299.73	0.00	1312.00	2.24	0.00	0.00
RSD	527.91	487.91	518.92	8.93	523.29	4.44	14401.00	12656.00

\* 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	430	0	1453	34	0	34.74	7.74	42.47
Delhi	321	-157	-51	431	-93	-51	11.47	-5.46	6.01
Haryana	1595	113	0	1606	63	0	38.60	-0.05	38.55
HP	-1196	-233	0	-1044	-363	0	-25.93	-8.11	-34.04
J&K	-682	-101	0	-437	79	0	-11.56	-1.04	-12.60
CHD	0	0	0	0	0	0	0.24	0.00	0.24
Rajasthan	-834	371	2	-819	135	0	-19.90	7.60	-12.29
UP	811	301	45	318	541	47	10.53	9.23	19.75
Uttarakhand	85	0	0	85	0	0	2.03	0.00	2.03
<b>Total</b>	<b>1570</b>	<b>725</b>	<b>-4</b>	<b>1592</b>	<b>396</b>	<b>-4</b>	<b>40.20</b>	<b>9.90</b>	<b>50.10</b>

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	1482	1410	432	18	0	0
Delhi	698	296	53	-548	-51	-51
Haryana	1645	1572	114	-507	0	0
HP	-1018	-1196	-186	-515	0	0
J&K	-378	-682	79	-253	0	0
CHD	30	0	0	0	0	0
Rajasthan	-816	-839	372	135	2	0
UP	811	283	541	0	47	45
Uttarakhand	85	85	0	0	0	0

**XI. System Constraints:****XII. Grid Disturbance / Any Other Significant Event:****XIII. Weather Conditions For 17.08.2014 :****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 :**