

# पावर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 08.08.2014  
Date of Reporting : 09.08.2014

### 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
41310	4016	45326	49.97	40206	2595	42801	50.09	965.5	64.31

\* 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	55.64	20.43		76.07	117.22	116.78	-0.44	192.85	0.00
Haryana	65.24	0.46		65.70	108.14	107.16	-0.98	172.87	0.00
Rajasthan	90.44	5.21	15.73	111.39	28.10	29.54	1.44	140.93	0.83
Delhi	26.25			26.25	80.90	78.65	-2.25	104.90	0.13
UP	106.20	14.39	0.72	121.32	134.89	136.22	1.33	257.54	59.17
Uttarakhand		14.28		14.28	19.04	19.49	0.46	33.77	2.48
HP		25.82		25.82	-0.35	-0.20	0.14	25.61	0.00
J & K		15.20	0.00	15.20	15.91	16.07	0.16	31.27	1.70
Chandigarh				0.00	5.55	5.78	0.23	5.78	0.00
<b>Total</b>	<b>343.77</b>	<b>95.80</b>	<b>16.45</b>	<b>456.02</b>	<b>509.41</b>	<b>509.49</b>	<b>0.08</b>	<b>965.50</b>	<b>64.31</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	8043	0	-56	1340	8016	0	-7	1622	8501
Haryana	7821	0	-167	1480	7424	0	97	1465	8174
Rajasthan	6222	348	62	-841	5576	0	130	-548	6444
Delhi	4558	3	-70	294	4034	0	-195	212	4883
UP	10318	3375	0	536	11416	2595	112	995	11651
Uttarakhand	1415	190	-19	84	1440	0	4	157	1598
HP	1039	0	-26	-1293	954	0	77	-1466	1261
J&K	1642	100	198	-453	1136	0	94	-849	1642
Chandigarh	252	0	-2	20	211	0	6	0	284
<b>Total</b>	<b>41310</b>	<b>4016</b>	<b>-79</b>	<b>1167</b>	<b>40206</b>	<b>2595</b>	<b>317</b>	<b>1590</b>	<b>42491</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 :

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
<b>A. NTPC</b>								
Singrauli STPS	2000	1410	1549	1512	33.77	1407	33.01	0.76
Rihand I STPS	1000	750	823	818	19.40	808	17.55	1.85
Rihand II STPS	1000	503	706	501	13.14	548	11.73	1.41
Rihand III STPS	1000	518	447	860	13.29	554	12.03	1.26
Dadri I STPS	840	813	806	600	17.94	748	17.38	0.56
Dadri II STPS	980	970	960	655	21.17	882	20.92	0.25
Unchahar I TPS	420	398	437	366	9.94	414	9.09	0.85
Unchahar II TPS	420	400	430	342	9.42	393	8.57	0.85
Unchahar III TPS	210	198	209	162	4.62	192	4.20	0.41
ISTPP (Jhajjar)	1500	950	953	614	16.49	687	17.25	-0.76
Dadri GPS	830	648	370	374	8.42	351	8.38	0.04
Anta GPS	419	390	372	261	8.10	337	7.71	0.38
Auraiya GPS	663	634	161	163	3.74	156	3.64	0.10
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>8586</b>	<b>8223</b>	<b>7228</b>	<b>179</b>	<b>7478</b>	<b>172</b>	<b>8</b>
<b>B. NPC</b>								
NAPS	440	269	308	312	6.50	271	6.46	0.04
RAPS- B	440	399	443	445	9.55	398	9.58	-0.03
RAPS- C	440	210	228	230	4.95	206	5.04	-0.09
<b>Sub Total (B)</b>	<b>1320</b>	<b>878</b>	<b>979</b>	<b>987</b>	<b>20.99</b>	<b>875</b>	<b>21.07</b>	<b>-0.08</b>
<b>C. NHPC</b>								
Chamera I HPS	540	534	549	549	13.12	547	12.82	0.30
Chamera II HPS	300	301	310	307	7.34	306	7.22	0.12
Chamera III HPS	231	229	235	230	5.57	232	5.50	0.07
Bairasui HPS	180	178	182	58	3.33	139	3.22	0.11
Salal-HPS	690	662	673	673	16.22	676	15.89	0.32
Tanakpur-HPS	94	84	86	87	2.07	86	2.02	0.05
Uri-HPS	480	387	414	366	9.52	397	9.30	0.22
Uri-II HPS	240	221	237	210	5.37	224	5.31	0.06
Dhauliganga-HPS	280	207	211	211	5.01	209	4.97	0.05
Dulhasti-HPS	390	386	400	395	9.31	388	9.26	0.05
Sewa-II HPS	120	119	130	0	2.10	87	1.97	0.13
Parbati 3	390	261	271	257	5.88	245	5.78	0.10
<b>Sub Total ©</b>	<b>3935</b>	<b>3570</b>	<b>3698</b>	<b>3343</b>	<b>85</b>	<b>3535</b>	<b>83</b>	<b>2</b>
<b>D.SJVNL</b>								
NJPC	1500	1605	1617	1612	38.51	1605	38.52	-0.01
Rampur HEP	275	350	356	362	8.55	356	8.40	0.15
<b>Sub Total (D)</b>	<b>1775</b>	<b>1955</b>	<b>1973</b>	<b>1974</b>	<b>47.06</b>	<b>1961</b>	<b>46.92</b>	<b>0.14</b>
<b>E. THDC</b>								
Tehri HPS	1000	988	995	988	23.67	986	23.50	0.17
Koteshwar HPS	400	385	393	387	8.65	361	8.60	0.05
<b>Sub Total (E)</b>	<b>1400</b>	<b>1373</b>	<b>1388</b>	<b>1375</b>	<b>32.33</b>	<b>1347</b>	<b>32.10</b>	<b>0.23</b>
<b>F. BBMB</b>								
Bhakra HPS	1514	973	1330	825	22.56	940	23.34	-0.78
Dehar HPS	990	576	825	560	14.17	591	13.84	0.34
Pong HPS	396	113	258	126	2.67	111	2.71	-0.04
<b>Sub Total (F)</b>	<b>2900</b>	<b>1662</b>	<b>2413</b>	<b>1511</b>	<b>39.40</b>	<b>1642</b>	<b>39.88</b>	<b>-0.48</b>
<b>G. IPP(s)/JV(s)</b>								
ADHPL HPS(IPP)	192	0	226	168	4.66	194	4.03	0.63
KWHEP HPS(IPP)	1000	0	1200	1200	28.70	1196	28.51	0.19
Malana Stg-II HPS	100	0	112	112	2.65	110	2.49	0.16
Shree Cement TPS	300	0	149	143	3.27	136	3.27	0.00
Budhil HPS(IPP)	70	0	69	66	1.57	65	1.67	-0.11
<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1756</b>	<b>1689</b>	<b>40.84</b>	<b>1702</b>	<b>39.98</b>	<b>0.86</b>
<b>H. Total Regional Entities (A-G)</b>	<b>24289</b>	<b>18023</b>	<b>20430</b>	<b>18107</b>	<b>444.93</b>	<b>18539</b>	<b>434.77</b>	<b>10.16</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	1020	980	21.52	897
	Guru Nanak Dev TPS(Bhatinda)	440	225	108	4.35	181
	Guru Hargobind Singh TPS(L.mbt)	920	668	502	13.48	562
	Goindwal(GVK)		0	0	0.00	0
	Rajpura	700	647	744	16.29	679
	Talwandi Saboo	660	0	0	0.00	0
	Thermal (Total)	<b>3980</b>	<b>2560</b>	<b>2334</b>	<b>55.64</b>	<b>2318</b>
	Total Hydro	1148	807	875	20.43	851
	<b>Total Punjab</b>	<b>5128</b>	<b>3367</b>	<b>3209</b>	<b>76.07</b>	<b>3170</b>
	Haryana	Panipat TPS	1367	629	596	14.16
DCRTPP (Yamuna nagar)		600	527	506	11.99	499
Faridabad GPS (NTPC)		432	191	195	4.62	192
RGTPP (khedar) (IPP)		1200	1140	920	23.19	966
Magnum Diesel (IPP)		25	0	0	0.00	0
Jhajjar(CLP)		1320	570	451	11.30	471
Thermal (Total)		4944	3057	2668	65.24	2718
Total Hydro		62	20	20	0.46	19
<b>Total Haryana</b>		<b>5006</b>	<b>3077</b>	<b>2688</b>	<b>65.70</b>	<b>2738</b>
Rajasthan		kota TPS	1240	713	717	16.24
	suratgarh TPS	1500	866	809	19.87	828
	Chabra TPS	750	529	482	12.08	504
	Dholpur GPS	330	0	0	0.09	4
	Ramgarh GPS	271	120	133	3.46	144
	RAPS A (NPC)	300	0	0	0.00	0
	Barsingsar (NLC)	250	190	146	3.78	157
	Giral LTPS	250	53	53	1.24	52
	Rajwest LTPS (IPP)	1080	712	554	13.85	577
	VSLP LTPS (IPP)	135	0	0	0.00	0
	Kalisindh Thermal	600	362	362	8.60	359
	Kawai(Adani)	1320	454	436	11.21	467
	Thermal (Total)	8026	3999	3692	90	3768
	Total Hydro	550	214	220	5.21	217
	Wind power	2798	288	1046	15.02	626
	Biomass	99	19	19	0.46	19
	Solar	730	0	0	0.26	11
	Renewable/Others (Total)	3627	307	1065	15.73	656
	<b>Total Rajasthan</b>	<b>12203</b>	<b>4520</b>	<b>4977</b>	<b>111.39</b>	<b>4641</b>
	UP	Anpara TPS	1630	834	785	19.80
Obra TPS		1288	297	418	8.50	354
Paricha TPS		1140	408	416	10.00	417
Panki TPS		210	131	122	2.70	113
Harduaganj TPS		665	423	374	9.50	396
Tanda TPS (NTPC)		440	276	278	6.86	286
Roza TPS (IPP)		1200	860	866	20.59	858
Anpara-C (IPP)		1200	880	891	21.47	895
Bajaj Energy Pvt.Ltd(IPP) TPS		450	270	320	6.78	283
Thermal (Total)		8223	4379	4470	106.20	4425
Vishnuparyag HPS (IPP)		400	436	436	10.46	436
Other Hydro		527	273	141	3.94	164
Cogeneration		981	30	30	0.72	30
<b>Total UP</b>		<b>10131</b>	<b>5118</b>	<b>5077</b>	<b>121.32</b>	<b>4619</b>
Uttarakhand		Total Hydro	1303	696	674	14.28
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>696</b>	<b>674</b>	<b>14.28</b>	<b>595</b>
Delhi	Rajghat TPS	135	45	44	1.19	50
	Delhi Gas Turbine	282	72	73	1.79	74
	Pragati Gas Turbine	330	293	282	7.10	296
	Rithala GPS	95	0	0	0.00	0
	Bawana GPS	1370	299	303	6.98	291
	Badarpur TPS (NTPC)	705	364	374	9.20	383
	Thermal (Total)	2917	1073	1076	26.25	1094
	<b>Total Delhi</b>	<b>2917</b>	<b>1073</b>	<b>1076</b>	<b>26.25</b>	<b>1094</b>
HP	Baspa HPS (IPP)	300	330	307	7.65	319
	Malana HPS (IPP)	86	104	104	2.47	103
	Other Hydro	728	647	656	15.70	654
	<b>Total HP</b>	<b>1114</b>	<b>1081</b>	<b>1067</b>	<b>25.82</b>	<b>1076</b>
J & K	Baqilhar HPS (IPP)	450	450	450	10.80	450
	Other Hydro/IPP	436	183	187	4.40	184
	Gas/Diesel/Others	209	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>1094</b>	<b>633</b>	<b>637</b>	<b>15.20</b>	<b>634</b>
<b>Total State Control Area Generation</b>		<b>38896</b>	<b>19565</b>	<b>19405</b>	<b>456.02</b>	<b>18565</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>3254</b>	<b>4336</b>	<b>107.62</b>	<b>4484</b>
<b>Total Regional Availability(Gross)</b>		<b>63186</b>	<b>43249</b>	<b>41848</b>	<b>1008.57</b>	<b>41588</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	11302	11009	9683	239.63	9984
State Control Area Hydro	5589	3724	3634	95.80	3556
<b>Total Regional Hydro</b>	<b>16891</b>	<b>14733</b>	<b>13317</b>	<b>335.42</b>	<b>13540</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	-200	300	300	200	3.82	1.45	2.38
Gwalior-Agra (D/C)	866	1293	2102	0	30.07	0.00	30.07
Zerda-Kankroli	-182	-326	0	363	0.00	5.84	-5.84
Zerda-Bhinmal	-199	-376	0	441	0.00	6.57	-6.57
Malanpur-Auraiya	-114	-39	0	114	0.00	1.04	-1.04
Badod-Kota/Morak	-99	-183	0	197	0.00	3.32	-3.32
Mundra-Mohindergarh(HVDC)	2001	2000	2026	0	48.37	0.00	48.37
Vindhychal - Rihand	482	468	491	0	11.60	0.00	11.60
<b>Sub Total WR</b>	<b>2555</b>	<b>3137</b>			<b>93.86</b>	<b>18.22</b>	<b>75.64</b>
Pusaui Bypass	400	400	400	0	9.64	0.00	9.64
MZP- GKP (D/C)	180	352	502	0	8.63	0.00	8.63
Patna-Balia(D/C)	75	253	430	0	6.06	0.00	6.06
B'Sharif-Balia (D/C)	82	162	324	0	4.47	0.00	4.47
Pusaui-Balia	-83	-55	0	93	0.00	1.33	-1.33
Gaya-Fatehpur (765 Kv)	-42	-17	91	84	0.69	0.00	0.69
Pusaui-Sahupuri	152	188	190	0	3.58	0.00	3.58
K'nasa-Sahupuri	0	0	0	0	0.48	0.00	0.48
Son Ngr-Rihand	-36	-34	0	-44	0.00	0.80	-0.80
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	-29	-50	105	96	0.55	0.00	0.55
<b>Sub Total ER</b>	<b>699</b>	<b>1199</b>			<b>34.12</b>	<b>2.13</b>	<b>31.99</b>
<b>Total IR Exch</b>	<b>3254</b>	<b>4336</b>			<b>127.98</b>	<b>20.35</b>	<b>107.62</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
23.73	3.78	27.51	4.92	8.68	-10.98	16.55	-0.60	0.60

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
20.85	74.09	94.95	31.99	75.64	107.62	11.13	1.54	12.68

**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	2.16	11.96	34.94	59.06	52.78	9.33	2.92	0.22	NA

Frequency (Hz)				Average Frequency Hz	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX (Hz)	MIN (Hz)
50.21	15.02	49.54	19.10	49.93	0.16	0.11	50.19	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	411	07:33	404	03:13	0.0	0.0	0.0	0.0
Gorakhpur	400	409	07:02	393	16:46	0.0	0.0	0.0	0.0
Bareilly	400	414	06:04	400	00:13	0.0	0.0	0.0	0.0
Kanpur	400	416	08:01	402	23:36	0.0	0.0	0.0	0.0
Dadri	400	413	06:04	401	16:47	0.0	0.0	0.0	0.0
Ballabgarh	400	420	06:02	406	22:34	0.0	0.0	0.0	0.0
Bawana	400	417	06:04	405	15:54	0.0	0.0	0.0	0.0
Bassi	400	434	04:02	416	16:46	0.0	0.0	69.6	2.2
Hissar	400	410	18:52	400	11:24	0.0	0.0	0.0	0.0
Moga	400	413	06:04	405	11:26	0.0	0.0	0.0	0.0
Abdullapur	400	416	06:05	396	00:05	0.0	0.0	0.0	0.0
Nalagarh	400	415	04:02	405	10:34	0.0	0.0	0.0	0.0
Kishenpur	400	415	08:02	409	19:43	0.0	0.0	0.0	0.0
Wagoora	400	409	01:53	399	20:15	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	773	04:02	747	22:36	0.0	0.0	0.0	0.0
Balia	765	0	00:00	9999	00:00	0.0	0.0	0.0	0.0
Moga	765	796	08:01	782	11:26	0.0	0.0	0.0	0.0
Agra	765	787	04:02	762	22:34	0.0	0.0	0.0	0.0
Bhiwani	765	795	06:04	773	22:37	0.0	0.0	0.0	0.0
Unnao	765	755	07:50	729	23:44	0.0	22.6	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	1359	263	0	1340	0	0	32.06	6.73	38.80
Delhi	416	-153	-51	456	-112	-50	12.58	-2.85	9.74
Haryana	1444	22	0	1444	37	0	34.65	-0.01	34.64
HP	-1197	-269	0	-918	-376	0	-23.87	-7.81	-31.68
J&K	-505	-344	0	-463	10	0	-11.21	-3.41	-14.62
CHD	0	0	0	0	20	0	0.24	0.30	0.53
Rajasthan	-834	285	1	-820	-21	0	-19.91	6.51	-13.40
UP	602	344	49	232	255	49	8.35	7.82	16.17
Uttarakhand	84	73	0	84	0	0	2.01	1.57	3.57
<b>Total</b>	<b>1369</b>	<b>221</b>	<b>0</b>	<b>1355</b>	<b>-187</b>	<b>-1</b>	<b>34.88</b>	<b>8.87</b>	<b>43.75</b>

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	1371	1300	737	0	0	0
Delhi	756	392	198	-383	0	-51
Haryana	1444	1444	177	-713	0	0
HP	-892	-1197	-241	-503	0	0
J&K	-404	-540	10	-420	0	0
CHD	29	0	39	0	0	0
Rajasthan	-816	-839	472	-22	3	-48
UP	602	206	737	0	49	0
Uttarakhand	84	84	98	0	0	0

**XI. System Constraints:****XII. Grid Disturbance / Any Other Significant Event:****XIII. Weather Conditions For 08.08.2014 :****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 :**