

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 27.06.2014  
Date of Reporting : 28.06.2014

### 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
43759	2100	45859	49.87	43644	2240	45884	49.94	1032.0	61.35

\* 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	56.11	22.50		78.61	124.04	122.96	-1.08	201.57	1.93
Haryana	49.82	0.54		50.37	120.74	119.45	-1.29	169.82	0.03
Rajasthan	111.70	0.25	19.99	131.93	53.36	54.41	1.05	186.34	2.27
Delhi	30.47			30.47	83.39	80.44	-2.95	110.91	0.74
UP	126.95	14.33	1.20	142.48	122.28	124.16	1.88	266.64	53.94
Uttarakhand		16.89		16.89	20.95	21.21	0.26	38.10	0.68
HP		24.20		24.20	2.01	1.51	-0.50	25.71	0.07
J & K		10.51	0.00	10.51	16.02	16.31	0.29	26.82	1.70
Chandigarh				0.00	5.57	6.07	0.50	6.07	0.00
<b>Total</b>	<b>375.05</b>	<b>89.23</b>	<b>21.19</b>	<b>485.46</b>	<b>548.36</b>	<b>546.52</b>	<b>-1.83</b>	<b>1031.98</b>	<b>61.35</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	8898	75	-169	1432	8446	0	23	1802	9128
Haryana	7713	0	-272	1614	7179	0	-47	1709	7880
Rajasthan	7135	0	166	-707	7857	0	-91	-238	8381
Delhi	4648	0	-17	272	4436	0	-120	270	5298
UP	11013	1850	-38	317	12113	2240	268	468	12113
Uttarakhand	1685	75	38	310	1532	0	62	242	1750
HP	1004	0	-68	-1194	918	0	-43	-1327	1209
J&K	1416	100	122	-516	944	0	-33	-792	1426
Chandigarh	247	0	15	0	220	0	14	0	326
<b>Total</b>	<b>43759</b>	<b>2100</b>	<b>-223</b>	<b>1528</b>	<b>43644</b>	<b>2240</b>	<b>33</b>	<b>2133</b>	<b>45230</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 :

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	1925	2029	2067	46.31	1930	45.92	0.39
	Rihand I STPS	1000	850	914	939	20.73	864	20.12	0.61
	Rihand II STPS	1000	900	912	927	22.04	918	21.31	0.73
	Rihand III STPS	1000	811	869	889	19.43	810	19.23	0.20
	Dadri I STPS	840	813	873	683	16.67	694	16.90	-0.23
	Dadri II STPS	980	966	1005	810	21.42	893	21.45	-0.03
	Unchahar I TPS	420	401	414	395	9.29	387	9.53	-0.24
	Unchahar II TPS	420	406	420	433	9.32	388	9.49	-0.17
	Unchahar III TPS	210	202	214	212	4.60	192	4.70	-0.09
	ISTPP (Jhajjar)	1500	1410	967	923	21.17	882	21.36	-0.19
	Dadri GPS	830	795	174	180	4.07	170	4.45	-0.37
	Anta GPS	419	378	244	227	5.68	237	5.57	0.11
	Auraiya GPS	663	631	149	155	3.49	145	3.53	-0.05
	Dadri Solar	5	1	0	0	0.02	1	0.03	-0.01
	Unchahar Solar	10	3	0	0	0.04	2	0.07	-0.03
	<b>Sub Total (A)</b>	<b>11297</b>	<b>10491</b>	<b>9184</b>	<b>8840</b>	<b>204</b>	<b>8512</b>	<b>204</b>	<b>1</b>
B. NPC	NAPS	440	273	305	312	6.50	271	6.55	-0.05
	RAPS- B	440	393	437	437	9.42	393	9.43	-0.01
	RAPS- C	440	330	403	409	8.69	362	7.92	0.77
	<b>Sub Total (B)</b>	<b>1320</b>	<b>996</b>	<b>1145</b>	<b>1158</b>	<b>24.62</b>	<b>1026</b>	<b>23.90</b>	<b>0.71</b>
C. NHPC	Chamera I HPS	540	535	540	540	13.08	545	12.84	0.24
	Chamera II HPS	300	301	313	309	7.46	311	7.22	0.24
	Chamera III HPS	231	229	240	238	5.69	237	5.50	0.19
	Bairasui HPS	180	144	181	182	3.31	138	3.01	0.30
	Salal-HPS	690	663	680	680	16.40	683	15.91	0.49
	Tanakpur-HPS	94	61	75	53	1.57	65	1.47	0.10
	Uri-HPS	480	475	478	478	11.59	483	11.40	0.19
	Uri-II HPS	240	240	249	242	5.88	245	5.76	0.12
	Dhauliganga-HPS	280	215	270	205	5.52	230	4.82	0.70
	Dulhasti-HPS	390	289	393	270	7.19	300	6.94	0.25
	Sewa-II HPS	120	119	124	99	1.80	75	1.50	0.30
	Parbati 3	390	203	140	130	3.07	128	2.91	0.16
	<b>Sub Total ©</b>	<b>3935</b>	<b>3474</b>	<b>3683</b>	<b>3426</b>	<b>83</b>	<b>3440</b>	<b>79</b>	<b>3</b>
D.SJVNL	NJPC	1500	1605	1617	1618	38.62	1609	38.46	0.17
	Rampur HEP	275	275	291	281	6.66	277	6.59	0.07
	<b>Sub Total (D)</b>	<b>1775</b>	<b>1880</b>	<b>1908</b>	<b>1899</b>	<b>45.28</b>	<b>1887</b>	<b>45.05</b>	<b>0.23</b>
E. THDC	Tehri HPS	1000	540	269	547	8.89	370	8.70	0.19
	Koteshwar HPS	400	200	395	101	4.78	199	4.70	0.08
	<b>Sub Total (E)</b>	<b>1400</b>	<b>740</b>	<b>664</b>	<b>648</b>	<b>13.67</b>	<b>570</b>	<b>13.40</b>	<b>0.27</b>
F. BBMB	Bhakra HPS	1514	904	1324	921	22.74	948	21.69	1.05
	Dehar HPS	990	597	660	635	15.22	634	14.33	0.90
	Pong HPS	396	204	364	122	5.09	212	4.91	0.19
	<b>Sub Total (F)</b>	<b>2900</b>	<b>1705</b>	<b>2348</b>	<b>1678</b>	<b>43.05</b>	<b>1794</b>	<b>40.92</b>	<b>2.13</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	228	159	4.09	170	4.47	-0.38
	KWHEP HPS(IPP)	1000	0	1200	1200	28.13	1172	28.51	-0.38
	Malana Stg-II HPS	100	0	111	75	1.98	82	1.85	0.13
	Shree Cement TPS	300	0	137	140	3.37	141	3.60	-0.23
	Budhil HPS(IPP)	70	0	69	34	1.45	61	1.45	0.00
	<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1745</b>	<b>1608</b>	<b>39.02</b>	<b>1626</b>	<b>39.89</b>	<b>-0.87</b>
<b>H. Total Regional Entities (A-G)</b>		<b>24289</b>	<b>19286</b>	<b>20677</b>	<b>19257</b>	<b>452.48</b>	<b>18853</b>	<b>446.09</b>	<b>6.39</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	1260	1250	28	1151
	Guru Nanak Dev TPS(Bhatinda)	440	214	195	5	189
	Guru Hargobind Singh TPS(L.mbt)	920	824	465	14	572
	Goindwal(GVK)		0	0	0	0
	Rajpura	700	514	512	10	426
	Talwandi Saboo	660	0	0	0.00	0
	Thermal (Total)	<b>3980</b>	<b>2812</b>	<b>2422</b>	<b>56</b>	<b>2338</b>
	Total Hydro	1148	925	942	22.50	938
	<b>Total Punjab</b>	<b>5128</b>	<b>3737</b>	<b>3364</b>	<b>78.61</b>	<b>3275</b>
	Haryana	Panipat TPS	1367	447	292	9.66
DCRTPP (Yamuna nagar)		600	523	542	12.00	500
Faridabad GPS (NTPC)		432	182	280	5.01	209
RGTPP (khedar) (IPP)		1200	569	448	11.75	490
Magnum Diesel (IPP)		25	0	0	0.00	0
Jhajjar(CLP)		1320	547	553	11.40	475
Thermal (Total)		4944	2268	2115	50	2076
Total Hydro		62	24	24	0.54	23
<b>Total Haryana</b>		<b>5006</b>	<b>2292</b>	<b>2139</b>	<b>50.37</b>	<b>2099</b>
Rajasthan		kota TPS	1240	934	931	22.17
	suratgarh TPS	1500	1293	1301	30.87	1286
	Chabra TPS	750	164	539	10.79	450
	Dholpur GPS	330	101	102	2.51	105
	Ramgarh GPS	271	118	112	3.61	151
	RAPS A (NPC)	300	0	0	0.00	0
	Barsingsar (NLC)	250	98	98	2.12	89
	Giral LTPS	250	31	71	0.88	37
	Rajwest LTPS (IPP)	1080	837	836	19.89	829
	VSLP LTPS (IPP)	135	0	0	0.00	0
	Kalisindh Thermal	600	0	0	0.00	0
	Kawai(Adani)	1320	1140	587	18.84	785
	Thermal (Total)	8026	4716	4577	112	4654
	Total Hydro	550	0	0	0.25	11
	Wind power	2798	706	998	18.93	789
	Biomass	99	30	30	0.72	30
	Solar	730	0	0	0.33	14
	Renewable/Others (Total)	3627	736	1028	20	833
	<b>Total Rajasthan</b>	<b>12203</b>	<b>5452</b>	<b>5605</b>	<b>131.93</b>	<b>5497</b>
	UP	Anpara TPS	1630	1414	1393	30.02
Obra TPS		1288	200	400	7.22	301
Paricha TPS		1140	805	845	17.45	727
Panki TPS		210	80	85	1.77	74
Harduaganj TPS		665	430	431	9.28	387
Tanda TPS (NTPC)		440	287	286	6.93	289
Roza TPS (IPP)		1200	1089	1103	22.47	936
Anpara-C (IPP)		1200	939	945	22.57	940
Bajaj Energy Pvt.Ltd(IPP) TPS		450	407	365	9.24	385
Thermal (Total)		8223	5651	5853	127	5290
Vishnuparyag HPS (IPP)		400	436	436	10.46	436
Other Hydro		527	165	188	3.87	161
Cogeneration		981	50	50	1.20	50
<b>Total UP</b>		<b>10131</b>	<b>6302</b>	<b>6527</b>	<b>142.48</b>	<b>5501</b>
Uttarakhand		Total Hydro	1303	699	636	16.89
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>699</b>	<b>636</b>	<b>16.89</b>	<b>704</b>
Delhi	Rajghat TPS	135	103	103	2.64	110
	Delhi Gas Turbine	282	115	122	3.02	126
	Pragati Gas Turbine	330	280	260	5.78	241
	Rithala GPS	95	0	0	0.00	0
	Bawana GPS	1370	264	266	6.72	280
	Badarpur TPS (NTPC)	705	575	580	12.31	513
	Thermal (Total)	2917	1337	1331	30.47	1270
<b>Total Delhi</b>	<b>2917</b>	<b>1337</b>	<b>1331</b>	<b>30.47</b>	<b>1270</b>	
HP	Baspa HPS (IPP)	300	303	323	7.71	321
	Malana HPS (IPP)	86	94	80	1.78	74
	Other Hydro	728	630	612	14.71	613
	<b>Total HP</b>	<b>1114</b>	<b>1027</b>	<b>1015</b>	<b>24.20</b>	<b>1008</b>
J & K	Baqilhar HPS (IPP)	450	438	438	10.51	438
	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>438</b>	<b>438</b>	<b>10.51</b>	<b>438</b>
<b>Total State Control Area Generation</b>		<b>38896</b>	<b>21284</b>	<b>21055</b>	<b>485.46</b>	<b>19792</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>5420</b>	<b>5178</b>	<b>128.71</b>	<b>5363</b>
<b>Total Regional Availability(Gross)</b>		<b>63186</b>	<b>47381</b>	<b>45490</b>	<b>1066.64</b>	<b>44008</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	11302	10142	9085	218.76	9115
State Control Area Hydro	5589	3278	3243	89.23	3282
<b>Total Regional Hydro</b>	<b>16891</b>	<b>13420</b>	<b>12328</b>	<b>307.98</b>	<b>12397</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	300	300	400	0	5.69	0.00	5.69
Gwalior-Agra (D/C)	1878	1621	2085	0	41.05	0.00	41.05
Zerda-Kankroli	-99	-208	0	304	0.00	4.54	-4.54
Zerda-Bhinmal	-105	-221	0	327	0.00	4.26	-4.26
Malanpur-Auraiya	-13	-27	0	67	0.00	0.74	-0.74
Badod-Kota/Morak	-56	-54	0	70	0.00	0.22	-0.22
Mundra-Mohindergarh(HVDC)	2103	1999	2103	0	49.06	0.00	49.06
<b>Sub Total WR</b>	<b>4008</b>	<b>3410</b>			<b>95.79</b>	<b>9.76</b>	<b>86.03</b>
Pusaui Bypass	400	400	400	0	9.67	0.00	9.67
MZP- GKP (D/C)	498	604	828	0	15.03	0.00	15.03
Patna-Balia(D/C)	194	385	472	0	7.92	0.00	7.92
B'Sharif-Balia (D/C)	219	300	404	0	7.36	0.00	7.36
Pusaui-Balia	-54	-91	0	101	0.00	1.38	-1.38
Gaya-Fatehpur (765 Kv)	0	0	0	0	0.00	0.00	0.00
Pusaui-Sahupuri	155	170	190	0	4.09	0.00	4.09
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	0	0	0	0	0.00	0.00	0.00
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>1412</b>	<b>1768</b>			<b>44.06</b>	<b>1.38</b>	<b>42.68</b>
<b>Total IR Exch</b>	<b>5420</b>	<b>5178</b>			<b>139.85</b>	<b>11.15</b>	<b>128.71</b>

**V(B). Inter Regional Schedule & Actual Exchanges [Import (+ve)/Export (-ve)] [Corridor wise]**

ER	ISGS/LT Schedule (MU)		Bilateral Schedule (MU)		Power Exchange Shdl (MU)		Wheeling (MU)	
	Bhutan	Total	Through ER	Through WR	Through ER	Through WR	Through ER	Through WR
33.58	3.64	37.22	20.91	7.06	-12.57	1.61	-0.28	0.28

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
45.28	76.88	122.16	42.68	86.03	128.71	-2.60	9.15	6.55

**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	20.75	52.55	85.62	96.40	12.50	1.40	0.49	0.00	0.00

<----- Frequency (Hz) ----->				Average Frequency	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX (Hz)	MIN (Hz)
Freq	Time	Freq	Time	Hz				
50.16	18.01	49.32	9.13	49.79	0.59	0.12	50.11	49.57

**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	405	18:59	397	00:05	0.0	0.0	0.0	0.0
Gorakhpur	400	412	18:05	393	00:07	0.0	0.0	0.0	0.0
Bareilly	400	413	19:01	390	15:08	0.0	0.0	0.0	0.0
Kanpur	400	416	04:04	397	15:06	0.0	0.0	0.0	0.0
Dadri	400	409	06:03	390	14:50	0.0	0.0	0.0	0.0
Ballabgarh	400	416	04:02	395	14:47	0.0	0.0	0.0	0.0
Bawana	400	413	06:03	394	14:53	0.0	0.0	0.0	0.0
Bassi	400	421	04:02	404	11:42	0.0	0.0	1.0	0.0
Hissar	400	407	18:01	387	14:43	0.0	6.4	0.0	0.0
Moga	400	409	17:58	395	15:49	0.0	0.0	0.0	0.0
Abdullapur	400	413	06:04	396	14:41	0.0	0.0	0.0	0.0
Nalagarh	400	408	02:30	393	15:49	0.0	0.0	0.0	0.0
Kishenpur	400	413	08:02	402	20:34	0.0	0.0	0.0	0.0
Wagoora	400	408	02:29	393	20:32	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	04:04	734	15:08	0.0	8.6	0.0	0.0
Balia	765	780	19:01	742	00:07	0.0	0.0	0.0	0.0
Moga	765	791	18:01	761	15:09	0.0	0.0	0.0	0.0
Agra	765	784	04:04	748	14:48	0.0	0.0	0.0	0.0
Bhiwani	765	791	04:05	757	11:42	0.0	0.0	0.0	0.0
Unnao	765	753	18:59	721	15:09	6.5	71.4	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	485.71	610.73	486.77	636.01	1570.37	736.35
Pong	426.72	384.05	401.78	259.17	402.45	273.51	414.90	365.94
Tehri	829.79	740.04	746.35	32.00	NA	NA	438.59	242.00
Koteshwar	612.50	598.50	610.82	4.95	608.40	3.98	432.00	281.00
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. 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	1432	370	0	1432	0	0	34.20	2.91	37.11
Delhi	390	-120	0	502	-230	0	11.33	-5.00	6.33
Haryana	1538	171	0	1462	152	0	35.08	1.87	36.96
HP	-866	-461	0	-714	-480	0	-18.21	-10.83	-29.04
J&K	-547	-245	0	-572	57	0	-13.95	-1.23	-15.18
CHD	0	0	0	0	0	0	0.41	0.01	0.42
Rajasthan	-714	473	3	-714	5	2	-16.45	6.68	-9.77
UP	468	0	0	317	0	0	8.45	1.36	9.81
Uttarakhand	114	128	0	114	196	0	2.74	3.18	5.92
<b>Total</b>	<b>1815</b>	<b>315</b>	<b>3</b>	<b>1827</b>	<b>-301</b>	<b>2</b>	<b>43.61</b>	<b>-1.06</b>	<b>42.55</b>

**XI. System Constraints:****XII. Grid Disturbance / Any Other Significant Event:****XIII. Weather Conditions For 27.06.2014 :**

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 :**