

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 28.06.2014  
Date of Reporting : 29.06.2014

### 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
42641	1550	44191	49.92	43835	2355	46190	49.92	1051.4	46.70

\* 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	66.11	22.07		88.17	125.47	123.86	-1.61	212.03	0.00
Haryana	51.02	0.54		51.56	120.46	119.66	-0.80	171.22	0.00
Rajasthan	111.68	0.00	25.50	137.18	50.65	50.87	0.22	188.04	0.53
Delhi	31.20			31.20	81.01	78.41	-2.60	109.61	0.36
UP	124.07	14.34	1.20	139.61	131.80	133.94	2.15	273.56	43.98
Uttarakhand		17.32		17.32	19.80	20.54	0.74	37.86	0.14
HP		24.09		24.09	2.61	1.53	-1.08	25.63	0.00
J & K		11.92	0.00	11.92	16.49	15.35	-1.14	27.27	1.70
Chandigarh				0.00	5.67	6.14	0.47	6.14	0.00
<b>Total</b>	<b>384.08</b>	<b>90.28</b>	<b>26.70</b>	<b>501.06</b>	<b>553.95</b>	<b>550.30</b>	<b>-3.65</b>	<b>1051.36</b>	<b>46.70</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	8138	0	-363	1516	8680	0	-38	1697	10003
Haryana	7499	0	-234	1424	7292	0	-147	1685	8003
Rajasthan	7068	0	-116	-779	7468	0	-55	-441	8397
Delhi	4561	0	25	120	4478	0	-321	164	5133
UP	11322	1450	177	342	12219	2355	245	1185	12219
Uttarakhand	1734	0	188	255	1564	0	77	173	1756
HP	1011	0	-81	-1198	943	0	-42	-1291	1206
J&K	1051	100	-297	-288	961	0	-3	-763	1397
Chandigarh	257	0	13	0	230	0	22	0	318
<b>Total</b>	<b>42641</b>	<b>1550</b>	<b>-687</b>	<b>1392</b>	<b>43835</b>	<b>2355</b>	<b>-263</b>	<b>2408</b>	<b>45820</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	1925	2073	2074	46.04	1918	46.04	0.00
	Rihand I STPS	1000	885	935	974	21.06	878	20.70	0.36
	Rihand II STPS	1000	950	945	1008	23.14	964	22.43	0.71
	Rihand III STPS	1000	831	801	872	19.47	811	19.34	0.13
	Dadri I STPS	840	813	857	785	18.33	764	18.81	-0.48
	Dadri II STPS	980	966	967	1012	22.48	937	22.86	-0.37
	Unchahar I TPS	420	397	378	381	9.02	376	9.28	-0.26
	Unchahar II TPS	420	402	325	354	8.98	374	9.12	-0.14
	Unchahar III TPS	210	200	180	213	4.40	183	4.47	-0.08
	ISTPP (Jhajjar)	1500	1410	715	925	19.28	803	19.76	-0.48
	Dadri GPS	830	793	172	179	4.06	169	4.59	-0.53
	Anta GPS	419	378	240	249	5.78	241	5.65	0.12
	Auraiya GPS	663	628	151	154	3.48	145	3.59	-0.11
	Dadri Solar	5	1	0	0	0.02	1	0.03	-0.01
	Unchahar Solar	10	3	0	0	0.00	0	0.07	-0.07
	<b>Sub Total (A)</b>	<b>11297</b>	<b>10582</b>	<b>8739</b>	<b>9180</b>	<b>206</b>	<b>8564</b>	<b>207</b>	<b>-1</b>
B. NPC	NAPS	440	273	304	317	6.46	269	6.55	-0.09
	RAPS- B	440	393	433	435	9.40	392	9.43	-0.03
	RAPS- C	440	330	396	410	8.67	361	7.92	0.75
	<b>Sub Total (B)</b>	<b>1320</b>	<b>996</b>	<b>1133</b>	<b>1162</b>	<b>24.53</b>	<b>1022</b>	<b>23.90</b>	<b>0.63</b>
C. NHPC	Chamera I HPS	540	535	535	535	13.02	543	12.84	0.18
	Chamera II HPS	300	301	307	313	7.46	311	7.22	0.24
	Chamera III HPS	231	229	229	229	5.66	236	5.50	0.17
	Bairasui HPS	180	179	182	140	3.24	135	2.86	0.38
	Salal-HPS	690	663	680	680	16.38	683	15.91	0.48
	Tanakpur-HPS	94	64	78	75	1.57	65	1.53	0.04
	Uri-HPS	480	475	476	478	11.58	482	11.40	0.17
	Uri-II HPS	240	240	249	245	5.89	246	5.76	0.13
	Dhauliganga-HPS	280	208	208	208	5.00	208	4.99	0.00
	Dulhasti-HPS	390	381	388	389	9.14	381	9.14	0.01
	Sewa-II HPS	120	119	128	93	1.76	73	1.50	0.26
	Parbati 3	390	192	130	130	2.62	109	4.52	-1.90
	<b>Sub Total ©</b>	<b>3935</b>	<b>3585</b>	<b>3590</b>	<b>3515</b>	<b>83</b>	<b>3471</b>	<b>83</b>	<b>0</b>
D.SJVNL	NJPC	1500	1605	1609	1618	38.47	1603	38.46	0.01
	Rampur HEP	275	280	290	281	6.66	277	6.72	-0.06
	<b>Sub Total (D)</b>	<b>1775</b>	<b>1885</b>	<b>1899</b>	<b>1899</b>	<b>45.13</b>	<b>1880</b>	<b>45.18</b>	<b>-0.05</b>
E. THDC	Tehri HPS	1000	536	545	265	6.61	275	6.50	0.11
	Koteshwar HPS	400	129	300	93	3.13	130	3.10	0.03
	<b>Sub Total (E)</b>	<b>1400</b>	<b>665</b>	<b>845</b>	<b>358</b>	<b>9.73</b>	<b>406</b>	<b>9.60</b>	<b>0.13</b>
F. BBMB	Bhakra HPS	1514	892	1331	802	21.79	908	21.40	0.39
	Dehar HPS	990	604	660	635	15.20	633	14.49	0.72
	Pong HPS	396	213	360	121	5.21	217	5.10	0.11
	<b>Sub Total (F)</b>	<b>2900</b>	<b>1708</b>	<b>2351</b>	<b>1558</b>	<b>42.20</b>	<b>1758</b>	<b>40.98</b>	<b>1.22</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	227	171	4.61	192	4.10	0.52
	KWHEP HPS(IPP)	1000	0	900	1200	25.65	1069	26.38	-0.73
	Malana Stg-II HPS	100	0	113	65	1.98	82	1.84	0.14
	Shree Cement TPS	300	0	138	138	3.37	140	3.39	-0.02
	Budhil HPS(IPP)	70	0	14	7	1.32	55	1.34	-0.02
	<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1392</b>	<b>1581</b>	<b>36.93</b>	<b>1539</b>	<b>37.04</b>	<b>-0.12</b>
<b>H. Total Regional Entities (A-G)</b>		<b>24289</b>	<b>19421</b>	<b>19949</b>	<b>19253</b>	<b>447.37</b>	<b>18640</b>	<b>446.62</b>	<b>0.75</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	1125	1050	25	1052
	Guru Nanak Dev TPS(Bhatinda)	440	250	220	6	230
	Guru Hargobind Singh TPS(L.mbt)	920	730	916	19	810
	Goindwal(GVK)		0	0	0	0
	Rajpura	700	330	330	11	453
	Talwandi Saboo	660	0	0	5.01	209
	Thermal (Total)	<b>3980</b>	<b>2435</b>	<b>2516</b>	<b>66</b>	<b>2754</b>
	Total Hydro	1148	935	943	22.07	919
	<b>Total Punjab</b>	<b>5128</b>	<b>3370</b>	<b>3459</b>	<b>88.17</b>	<b>3674</b>
	Haryana	Panipat TPS	1367	638	451	13.05
DCRTPP (Yamuna nagar)		600	604	373	10.31	430
Faridabad GPS (NTPC)		432	175	185	4.36	182
RGTPP (khedar) (IPP)		1200	560	443	11.99	500
Magnum Diesel (IPP)		25	0	0	0.00	0
Jhajjar(CLP)		1320	604	373	11.30	471
Thermal (Total)		4944	2581	1825	51	2126
Total Hydro		62	25	26	0.54	23
<b>Total Haryana</b>		<b>5006</b>	<b>2606</b>	<b>1851</b>	<b>51.56</b>	<b>2148</b>
Rajasthan		kota TPS	1240	924	909	22.30
	suratgarh TPS	1500	1246	1221	30.97	1291
	Chabra TPS	750	164	165	4.36	182
	Dholpur GPS	330	101	101	2.50	104
	Ramgarh GPS	271	154	125	3.58	149
	RAPS A (NPC)	300	0	0	0.00	0
	Barsingsar (NLC)	250	98	98	2.15	90
	Giral LTPS	250	0	54	0.07	3
	Rajwest LTPS (IPP)	1080	595	665	19.10	796
	VSLP LTPS (IPP)	135	0	0	0.00	0
	Kalisindh Thermal	600	0	0	0.00	0
	Kawai(Adani)	1320	869	950	26.64	1110
	Thermal (Total)	8026	4151	4288	112	4653
	Total Hydro	550	0	0	0.00	0
	Wind power	2798	1086	1131	24.08	1003
	Biomass	99	26	26	0.67	28
	Solar	730	0	0	0.75	31
	Renewable/Others (Total)	3627	1112	1157	25	1062
	<b>Total Rajasthan</b>	<b>12203</b>	<b>5263</b>	<b>5445</b>	<b>137.18</b>	<b>5716</b>
	UP	Anpara TPS	1630	1380	1391	29.60
Obra TPS		1288	191	208	4.40	183
Paricha TPS		1140	424	758	14.10	588
Panki TPS		210	70	70	1.50	63
Harduaganj TPS		665	417	427	9.20	383
Tanda TPS (NTPC)		440	276	294	6.99	291
Roza TPS (IPP)		1200	1107	1107	26.48	1103
Anpara-C (IPP)		1200	954	941	22.53	939
Bajaj Energy Pvt.Ltd(IPP) TPS		450	402	403	9.27	386
Thermal (Total)		8223	5221	5599	124	5170
Vishnuparyag HPS (IPP)		400	436	436	10.46	436
Other Hydro		527	182	212	3.88	162
Cogeneration		981	50	50	1.20	50
<b>Total UP</b>		<b>10131</b>	<b>5889</b>	<b>6297</b>	<b>139.61</b>	<b>5381</b>
Uttarakhand		Total Hydro	1303	726	676	17.32
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>726</b>	<b>676</b>	<b>17.32</b>	<b>722</b>
Delhi	Rajghat TPS	135	106	103	2.32	97
	Delhi Gas Turbine	282	119	121	2.87	120
	Pragati Gas Turbine	330	282	261	6.73	280
	Rithala GPS	95	0	0	0.00	0
	Bawana GPS	1370	277	356	6.79	283
	Badarpur TPS (NTPC)	705	494	508	12.50	521
	Thermal (Total)	2917	1278	1349	31.20	1300
	<b>Total Delhi</b>	<b>2917</b>	<b>1278</b>	<b>1349</b>	<b>31.20</b>	<b>1300</b>
HP	Baspa HPS (IPP)	300	304	304	7.66	319
	Malana HPS (IPP)	86	102	54	1.54	64
	Other Hydro	728	637	627	14.89	621
	<b>Total HP</b>	<b>1114</b>	<b>1043</b>	<b>985</b>	<b>24.09</b>	<b>1004</b>
J & K	Baqilhar HPS (IPP)	450	438	440	10.53	439
	Other Hydro/IPP	436	93	44	1.39	58
	Gas/Diesel/Others	209	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>1094</b>	<b>531</b>	<b>484</b>	<b>11.92</b>	<b>497</b>
<b>Total State Control Area Generation</b>		<b>38896</b>	<b>20706</b>	<b>20546</b>	<b>501.06</b>	<b>20442</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>5397</b>	<b>6551</b>	<b>124.53</b>	<b>5189</b>
<b>Total Regional Availability(Gross)</b>		<b>63186</b>	<b>46052</b>	<b>46350</b>	<b>1072.95</b>	<b>44271</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	11302	9925	8766	212.61	8859
State Control Area Hydro	5589	3442	3326	90.28	3326
<b>Total Regional Hydro</b>	<b>16891</b>	<b>13367</b>	<b>12092</b>	<b>302.89</b>	<b>12185</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	400	50	4.95	0.21	4.74
Gwalior-Agra (D/C)	2072	2194	2194	0	42.24	0.00	42.24
Zerda-Kankroli	-119	-115	0	241	0.00	3.79	-3.79
Zerda-Bhinmal	-140	-133	0	248	0.00	3.82	-3.82
Malanpur-Auraiya	-87	-8	0	87	0.00	0.89	-0.89
Badod-Kota/Morak	-56	-54	0	70	0.00	1.22	-1.22
Mundra-Mohindergarh(HVDC)	2299	2102	2306	0	49.06	0.00	49.06
<b>Sub Total WR</b>	<b>3919</b>	<b>4386</b>			<b>96.24</b>	<b>9.93</b>	<b>86.32</b>
Pusaui Bypass	400	400	400	0	8.47	0.00	8.47
MZP- GKP (D/C)	492	824	948	0	15.07	0.00	15.07
Patna-Balia(D/C)	255	333	373	0	5.33	0.00	5.33
B'Sharif-Balia (D/C)	235	393	443	0	6.05	0.00	6.05
Pusaui-Balia	-54	50	64	133	0.00	0.81	-0.81
Gaya-Fatehpur (765 Kv)	0	0	0	0	0.00	0.00	0.00
Pusaui-Sahupuri	150	165	205	0	4.10	0.00	4.10
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>1478</b>	<b>2165</b>			<b>39.02</b>	<b>0.81</b>	<b>38.21</b>
<b>Total IR Exch</b>	<b>5397</b>	<b>6551</b>			<b>135.26</b>	<b>10.73</b>	<b>124.53</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
31.54	3.52	35.05	20.99	9.23	-12.32	0.69	-0.23	0.23

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
43.50	84.24	127.74	38.21	86.32	124.53	-5.29	2.08	-3.21

**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	5.41	29.11	65.95	88.11	28.29	3.38	1.99	0.60	0.00

<----- Frequency (Hz) ----->				Average Frequency Hz	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX (Hz)	MIN (Hz)
Freq	Time	Freq	Time	Hz				
50.30	18.03	49.55	20.19	49.86	0.31	0.11	50.23	49.75

**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	404	17:52	398	00:14	0.0	0.0	0.0	0.0
Gorakhpur	400	413	18:02	393	14:46	0.0	0.0	0.0	0.0
Bareilly	400	414	18:04	391	13:44	0.0	0.0	0.0	0.0
Kanpur	400	414	18:02	397	13:44	0.0	0.0	0.0	0.0
Dadri	400	410	18:01	392	13:39	0.0	0.0	0.0	0.0
Ballabgarh	400	417	18:02	395	13:45	0.0	0.0	0.0	0.0
Bawana	400	414	18:01	396	13:41	0.0	0.0	0.0	0.0
Bassi	400	422	18:43	400	10:58	0.0	0.0	4.2	0.0
Hissar	400	408	18:01	387	13:40	0.0	2.0	0.0	0.0
Moga	400	407	07:00	394	13:45	0.0	0.0	0.0	0.0
Abdullapur	400	414	18:02	396	13:45	0.0	0.0	0.0	0.0
Nalagarh	400	408	07:01	394	00:03	0.0	0.0	0.0	0.0
Kishenpur	400	412	18:01	403	13:44	0.0	0.0	0.0	0.0
Wagoora	400	408	18:57	396	07:14	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	18:02	733	13:43	0.0	16.4	0.0	0.0
Balia	765	777	18:02	742	22:10	0.0	0.0	0.0	0.0
Moga	765	788	18:02	762	22:15	0.0	0.0	0.0	0.0
Agra	765	788	18:02	745	13:45	0.0	0.0	0.0	0.0
Bhiwani	765	796	18:01	758	13:44	0.0	0.0	0.0	0.0
Unnao	765	754	18:02	723	00:35	13.6	79.5	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	1488	209	0	1454	62	0	35.47	5.51	40.98
Delhi	439	-215	-61	499	-368	-11	11.74	-7.69	4.05
Haryana	1538	147	0	1361	63	0	35.10	-4.02	31.08
HP	-866	-425	0	-724	-474	0	-18.30	-9.86	-28.16
J&K	-498	-265	0	-498	210	0	-12.48	-0.97	-13.45
CHD	0	0	0	0	0	0	0.41	0.03	0.44
Rajasthan	-714	267	6	-714	-69	5	-17.14	3.83	-13.31
UP	696	442	48	342	0	0	12.21	2.97	15.18
Uttarakhand	114	58	0	114	141	0	2.74	2.30	5.04
<b>Total</b>	<b>2197</b>	<b>218</b>	<b>-7</b>	<b>1834</b>	<b>-435</b>	<b>-7</b>	<b>49.76</b>	<b>-7.89</b>	<b>41.87</b>

**XI. System Constraints:****XII. Grid Disturbance / Any Other Significant Event:****XIII. Weather Conditions For 28.06.2014 :**

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 :**