

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 26.07.2012

Date of Reporting : 27.07.2012

### 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
35421	5441	40862	49.27	37709	3286	40995	49.56	863.0	100.75

\* 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	44.70	18.83		63.53	116.34	119.79	3.45	183.32	21.31
Haryana	43.51	0.95		44.46	65.80	79.89	14.09	124.35	19.09
Rajasthan	70.86	0.00	12.99	83.85	50.94	62.07	11.13	145.91	8.73
Delhi	30.89			30.89	78.26	70.69	-7.56	101.58	0.11
UP	73.13	13.47	1.20	87.80	101.46	134.21	32.76	222.02	45.37
Uttarakhand		17.86		17.86	12.03	11.30	-0.72	29.16	3.18
HP		21.96		21.96	4.38	1.81	-2.57	23.76	0.01
J & K		15.18	0.00	15.18	14.55	11.73	-2.82	26.91	2.95
Chandigarh				0.00	6.84	5.94	-0.89	5.94	0.00
<b>Total</b>	<b>263.09</b>	<b>88.25</b>	<b>14.19</b>	<b>365.53</b>	<b>450.57</b>	<b>497.43</b>	<b>46.86</b>	<b>862.96</b>	<b>100.75</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				Day Energy MU	
	Demand Met	Shortage	UI	STOA/PX transaction	Demand Met	Shortage	UI	STOA/PX transaction	STOA/PX transaction	UI
Punjab	7914	1735	202	2093	7677	545	16	2582		58.05
Haryana	4893	794	175	835	5223	1401	698	761		18.47
Rajasthan	5535	377	109	431	6643	378	165	-186		5.30
Delhi	4473	0	-214	585	4012	12	-427	124		11.40
UP	8732	2235	1415	202	10721	850	2962	2258		15.12
Uttarakhand	1249	150	89	19	1334	0	10	-6		1.01
HP	855	0	-307	-887	875	0	-169	-937		-21.13
J&K	1500	150	188	-377	1020	100	-157	-377		-9.37
Chandigarh	270	0	-35	49	205	0	-43	10		1.23
<b>Total</b>	<b>35421</b>	<b>5441</b>	<b>1622</b>	<b>2951</b>	<b>37709</b>	<b>3286</b>	<b>3054</b>	<b>4228</b>		<b>80.09</b>

\* STOA figures are at sellers boundary & PX figures are at regional boundary.

### 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)	UI [OG:(+ve), UG: (-ve)]	
							Schedule Net MU	UI Net MU
<b>A. NTPC</b>								
Singrauli STPS	2000	1764	2020	1861	42.53	1772	42.33	0.20
Rihand I STPS	1000	434	462	457	10.50	437	10.43	0.07
Rihand II STPS	1000	940	1014	1008	22.77	949	22.56	0.21
Rihand III STPS	500		0	0	0.00	0		0.00
Dadri I STPS	840	769	845	843	18.52	772	18.46	0.07
Dadri II STPS	980	763	980	710	18.56	773	18.32	0.24
Unchahar I TPS	420	258	221	360	6.18	258	6.20	-0.02
Unchahar II TPS	420	280	310	314	6.79	283	6.72	0.07
Unchahar III TPS	210	145	160	160	3.51	146	3.48	0.03
ISTPP (Jhajjar)	1000	775	841	814	18.97	790	18.51	0.46
Dadri GPS	830	732	737	766	16.78	699	16.92	-0.14
Anta GPS	419	390	382	394	9.17	382	8.99	0.17
Auraiya GPS	663	391	290	303	7.01	292	7.19	-0.18
<b>Sub Total (A)</b>	<b>10282</b>	<b>7641</b>	<b>8262</b>	<b>7990</b>	<b>181.29</b>	<b>7554</b>	<b>180.10</b>	<b>1.19</b>
<b>B. NPC</b>								
NAPS	440	254	293	298	6.19	258	6.10	0.09
RAPS- B	440	370	436	383	8.95	373	8.87	0.08
RAPS- C	440	400	446	460	9.77	407	9.60	0.17
<b>Sub Total (B)</b>	<b>1320</b>	<b>1024</b>	<b>1175</b>	<b>1141</b>	<b>24.91</b>	<b>1038</b>	<b>24.57</b>	<b>0.34</b>
<b>C. NHPC</b>								
Chamera I HPS	540	356	360	360	8.61	359	8.50	0.11
Chamera II HPS	300	300	300	302	7.23	301	7.22	0.01
Chamera III HPS	231	231	215	214	5.41	226	5.57	-0.16
Bairasuil HPS	180	182	120	40	2.45	102	2.58	-0.13
Salal-HPS	690	653	661	657	15.67	653	15.70	-0.03
Tanakpur-HPS	94	90	93	93	2.18	91	2.22	-0.04
Uri-HPS	480	455	480	480	11.33	472	11.37	-0.04
Dhauliganga-HPS	280	277	284	284	6.75	281	6.81	-0.06
Dulhasi-HPS	390	387	406	404	9.28	387	9.34	-0.06
Sewa-II HPS	120	80	82	0	1.01	42	0.99	0.02
<b>Sub Total (C)</b>	<b>3305</b>	<b>3009</b>	<b>3001</b>	<b>2834</b>	<b>69.92</b>	<b>2913</b>	<b>70.30</b>	<b>-0.39</b>
<b>D.NJPC</b>								
Nathpa Jhakri	1500	1605	1618	1611	38.71	1613	38.52	0.19
<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>1618</b>	<b>1611</b>	<b>38.71</b>	<b>1613</b>	<b>38.52</b>	<b>0.19</b>
<b>E. THDC</b>								
Tehri HPS	1000	730	0	525	5.66	236	5.55	0.11
Koteshwar HPS	400	230	87	163	1.63	68	1.60	0.03
<b>Sub Total (E)</b>	<b>1400</b>	<b>960</b>	<b>87</b>	<b>688</b>	<b>7.29</b>	<b>304</b>	<b>7.15</b>	<b>0.14</b>
<b>F. BBMB</b>								
Bhakra HPS	1480	765	1213	626	18.92	788	18.36	0.56
Dehar HPS	990	607	660	610	14.82	618	14.57	0.25
Pong HPS	396	188	306	106	4.75	198	5.01	-0.26
<b>Sub Total (F)</b>	<b>2866</b>	<b>1560</b>	<b>2179</b>	<b>1342</b>	<b>38.49</b>	<b>1604</b>	<b>37.93</b>	<b>0.56</b>
<b>G. IPP(s)/JV(s)</b>								
ADHPL HPS(IPP)	192	0	231	232	5.25	219	4.63	0.62
KWHPEP HPS(IPP)	1000	0	1200	1200	28.63	1193	28.63	-0.01
Malana Stg-II HPS	100	0	106	105	2.57	107	2.09	0.49
Shree Cement TPS	300	0	240	143	3.93	164	3.25	0.69
Budhil HPS(IPP)	70		34	35	1.48	61		1.48
<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1811</b>	<b>1715</b>	<b>41.85</b>	<b>1744</b>	<b>38.59</b>	<b>3.26</b>
<b>H. Total Regional Entities (A-G)</b>	<b>22336</b>	<b>15799</b>	<b>18133</b>	<b>17321</b>	<b>402.45</b>	<b>16769</b>	<b>397.16</b>	<b>5.29</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	1041	827	20.18	841
	Guru Nanak Dev TPS(Bhatinda)	440	210	210	4.52	189
	Guru Hargobind Singh TPS(L.mbt)	920	901	912	19.99	833
	Thermal (Total)	2620	2152	1949	44.70	1862
	Total Hydro	1148	886	732	18.83	785
	<b>Total Punjab</b>	<b>3768</b>	<b>3038</b>	<b>2681</b>	<b>63.53</b>	<b>2647</b>
Haryana	Panipat TPS	1367	1104	1073	26.41	1100
	DCRTPP (Yamuna nagar)	600	0	0	0.00	0
	Faridabad GPS (NTPC)	432	375	389	9.21	384
	RGTPP (kheadar) (IPP)	1200	298	329	7.90	329
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	0	0	0.00	0
	Thermal (Total)	4944	1777	1791	43.51	1813
	Total Hydro	62	27	25	0.95	40
	<b>Total Haryana</b>	<b>5006</b>	<b>1804</b>	<b>1816</b>	<b>44.46</b>	<b>1852</b>
Rajasthan	kota TPS	1240	1038	1037	24.54	1023
	suratgarh TPS	1500	1113	1115	26.33	1097
	Chabra TPS	500	225	211	5.06	211
	Dholpur GPS	330	213	207	3.65	152
	Ramgarh GPS	111	56	55	1.43	60
	RAPS A (NPC)	300	191	101	4.31	180
	Barsingsar (NLC)	250	84	115	2.20	92
	Giral LTPS	250	85	49	0.68	28
	Rajwest LTPS (IPP)	540	122	122	2.66	111
	VSLP LTPS (IPP)	135	0	0	0.00	0
	Thermal (Total)	5156	3127	3012	70.86	2952
	Total Hydro	550	0	0	0.00	0
	Wind power	1843	91	991	11.94	498
	Biomass	91	31	31	0.75	31
	Solar	128	0	0	0.30	12
	Renewable/Others (Total)	2062	122	1022	12.99	541
	<b>Total Rajasthan</b>	<b>7767</b>	<b>3249</b>	<b>4034</b>	<b>83.85</b>	<b>3494</b>
	UP	Anpara TPS	1630	1014	927	20.50
Obra TPS		1382	383	353	8.00	333
Paricha TPS		890	603	633	13.20	550
Panki TPS		210	140	120	3.00	125
Harduaganj TPS		665	36	36	0.70	29
Tanda TPS (NTPC)		440	295	294	7.24	302
Roza TPS (IPP)		1200	810	545	17.08	712
Anpara-C (IPP)		1200	0	0	0.00	0
Bajaj Energy Pvt.Ltd(IPP) TPS		450	145	157	3.41	142
Thermal (Total)		8067	3426	3065	73.13	3047
Vishnuparyag HPS (IPP)		400	389	436	10.30	429
Other Hydro		527	89	0	3.17	132
Cogeneration		981	50	50	1.20	50
<b>Total UP</b>		<b>9975</b>	<b>3954</b>	<b>3551</b>	<b>87.80</b>	<b>3229</b>
Uttarakhand	Total Hydro	1303	735	702	17.86	744
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>735</b>	<b>702</b>	<b>17.86</b>	<b>744</b>
Delhi	Rajghat TPS	135	50	49	1.48	62
	Delhi Gas Turbine	282	217	186	5.04	210
	Pragati Gas Turbine	330	278	283	7.56	315
	Rithala GPS	108	20	0	0.40	17
	Bawana GPS	677	409	269	6.21	259
	Badarpur TPS (NTPC)	705	470	460	10.20	425
	Thermal (Total)	2237	1444	1247	30.89	1287
	<b>Total Delhi</b>	<b>2237</b>	<b>1444</b>	<b>1247</b>	<b>30.89</b>	<b>1287</b>
HP	Baspa HPS (IPP)	330	330	330	7.92	330
	Malana HPS (IPP)	86	107	107	2.54	106
	Other Hydro	589	525	477	11.50	479
	<b>Total HP</b>	<b>1005</b>	<b>962</b>	<b>914</b>	<b>22</b>	<b>915</b>
J & K	Baglihar HPS (IPP)	450	436	440	10.45	435
	Other Hydro	323	185	210	4.73	197
	Gas/Diesel/Others	183	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>956</b>	<b>621</b>	<b>650</b>	<b>15.18</b>	<b>633</b>
<b>Total State Control Area Generation</b>		<b>32017</b>	<b>15807</b>	<b>15595</b>	<b>365.53</b>	<b>14801</b>
<b>J. Net Inter Regional Exchange (Import (+ve)/Export (-ve))</b>			<b>3330</b>	<b>6590</b>	<b>120.93</b>	<b>5039</b>
<b>Total Regional Availability(Gross)</b>		<b>54353</b>	<b>37270</b>	<b>39506</b>	<b>888.91</b>	<b>36609</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	8422	8012	190.85	7952
State Control Area Hydro	5368	3320	3023	88.25	3248
<b>Total Regional Hydro</b>	<b>15731</b>	<b>11742</b>	<b>11035</b>	<b>279.10</b>	<b>11200</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	300	500	0	10.84	0.00	10.84
Gwalior-Agra (D/C)	679	1396	1605	0	22.55	0.00	22.55
Zerda-Kankroli	180	435	462	7	5.58	0.00	5.58
Zerda-Bhinmal	205	322	360	0	6.09	0.00	6.09
Malanpur-Auraiya	59	96	111	0	1.66	0.00	1.66
Badod-Kota/Morak	144	255	140	0	3.66	0.00	3.66
Mundra-Mohindergarh(HVDC)	0	584	592	0	13.20	0.00	13.20
<b>Sub Total WR</b>	<b>1767</b>	<b>3388</b>			<b>63.58</b>	<b>0.00</b>	<b>63.58</b>
Pusauli Bypass	300	250	300	0	6.46	0.00	6.46
MZP- GKP (D/C)	320	1124	1124	0	20.63	0.00	20.63
Patna-Balia(D/C)	253	574	702	0	11.58	0.00	11.58
B'Sharif-Balia (D/C)	310	569	569	0	9.90	0.00	9.90
Barh - Balia(D/C)	256	351	351	0	4.35	0.00	4.35
Pusauli-Balia	26	36	61	94	0.11	0.00	0.11
Gayaa-Fatehpur (765 Kv)	-5	163	348	15	2.21	0.00	2.21
Pusauli-Sahupuri	148	160	171	0	3.07	0.00	3.07
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-45	-25	0	48	0.00	0.97	-0.97
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>1563</b>	<b>3202</b>			<b>58.32</b>	<b>0.97</b>	<b>57.35</b>
<b>Total IR Exch</b>	<b>3330</b>	<b>6590</b>			<b>121.90</b>	<b>0.97</b>	<b>120.93</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
22.62	3.72	26.34	-4.64	39.70	5.82	4.62	0.00	0.00
<b>Total IR Schedule (MU)</b>			<b>Total IR Actual (MU)</b>			<b>Net IR UI (MU)</b>		
Through ER	Through WR	Total	Through ER	Through WR	Total	Through ER	Through WR	Total
27.52	45.60	73.12	57.35	63.58	120.93	29.83	17.98	47.81

**VI. Frequency Profile** <----- % of Time Frequency ----->

<48.80	<49.0	<49.20	<49.50	<49.7	49.5 - 50.2	49.7 - 50.2	> 50.00	> 50.2
0.01	6.00	11.10	37.10	72.40	62.60	27.30	3.60	0.30

<----- 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				
50.23	7.07	48.79	22.35	49.55	0.28	2.84	50.20	48.98

**VII. Voltage profile**

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	412	7:06	398	22:46	0.0	0.0	0.0	0.0
Gorakhpur	400	432	6:04	401	3:19	0.0	0.0	39.0	1.6
Bareilly	400	416	6:36	391	22:48	0.0	0.0	0.0	0.0
Kanpur	400	416	5:05	398	22:48	0.0	0.0	0.0	0.0
Dadri	400	416	7:05	400	10:19	0.0	0.0	0.0	0.0
Ballabgarh	400	420	7:07	402	11:14	0.0	0.0	0.0	0.0
Bawana	400	419	7:06	403	10:20	0.0	0.0	0.0	0.0
Bassi	400	423	13:03	400	13:23	31.2	31.2	2.3	0.0
Hissar	400	419	20:49	396	1:17	0.0	0.0	0.0	0.0
Moga	400	419	13:03	398	1:19	0.0	0.0	0.0	0.0
Abdullapur	400	418	20:49	404	1:18	0.0	0.0	0.0	0.0
Nalagarh	400	413	20:47	396	10:21	0.0	0.0	0.0	0.0
Kishenpur	400	417	7:08	401	1:16	0.0	0.0	0.0	0.0
Wagoora	400	416	7:08	390	20:35	0.0	0.0	0.0	0.0

**VIII. 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	476.76	387.82	496.06	937.45	1182.68	650.83
Pong	426.72	384.05	394.01	111.75	414.09	644.91	1303.03	392.05
Tehri	829.79	740.04	771.90	229.79	818.65	982.26	572.18	163.00
Koteshwar	612.50	598.50	600.40	0.63	NA	NA	163.00	108.00
Chamera-I	760.00	748.75	NA	10.00	NA	NA	317.06	234.37
Rihand	268.22	252.98	NA	NA	258.65	233.20	NA	NA
RPS	352.80	343.81	NA	NA	NA	NA	NA	NA
Jawahar Sagar	298.70	295.78	NA	NA	NA	NA	NA	NA
RSD	527.91	487.91	499.80	NA	509.15	NA	248.34	394.91

\* NA: Not Available

**IX. System Constraints:**

**X. Grid Disturbance / Any Other Significant Event:**

**XI. Weather Conditions For 26.07.2012 :**

1: Normal weather in NR.

**XII. Synchronisation of new generating units :**

**XIII. Synchronisation of new 220 / 400 / 765 KV lines and energising of bus / /substation :**

**XIV. Tripping of lines in pooling stations :**

**XV. Complete generation loss in a generating station :**

Report for : 26.07.2012

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER