

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 21.07.2012

Date of Reporting : 22.07.2012

### 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
34907	5750	40657	49.29	36666	3330	39995	49.54	842.6	124.10

\* 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	47.81	17.82		65.62	116.46	115.64	-0.81	181.27	29.77
Haryana	51.40	1.07		52.48	70.34	70.49	0.16	122.97	20.83
Rajasthan	65.08	0.09	8.06	73.23	40.35	59.85	19.50	133.08	10.04
Delhi	35.55			35.55	79.16	68.71	-10.45	104.26	0.08
UP	69.99	13.12	1.20	84.31	95.61	128.04	32.44	212.35	54.33
Uttarakhand		17.52		17.52	10.74	12.02	1.27	29.54	4.50
HP		20.61		20.61	1.80	2.37	0.57	22.98	1.60
J & K		15.28	0.00	15.28	13.41	14.91	1.50	30.19	2.95
Chandigarh				0.00	6.19	5.97	-0.23	5.97	0.00
<b>Total</b>	<b>269.82</b>	<b>85.52</b>	<b>9.26</b>	<b>364.60</b>	<b>434.05</b>	<b>478.00</b>	<b>43.95</b>	<b>842.60</b>	<b>124.10</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 (Net MU)	
	Demand Met	Shortage	UI	STOA/PX transaction	Demand Met	Shortage	UI	STOA/PX transaction	STOA/PX transaction	
Punjab	7895	1711	-1	2159	7421	1229	-107	2169	51.88	
Haryana	4705	1453	136	1047	5355	836	59	1047	25.13	
Rajasthan	5639	191	1045	-503	5693	225	883	-677	-15.10	
Delhi	4434	0	-430	682	4238	0	-481	692	16.14	
UP	8202	2075	732	112	10360	850	1376	212	2.84	
Uttarakhand	1289	150	114	0	1250	80	154	0	0.00	
HP	931	20	-3	-1656	928	10	6	-1691	-39.85	
J&K	1547	150	319	-374	1199	100	12	-374	-9.22	
Chandigarh	266	0	-11	40	222	0	-8	0	1.07	
<b>Total</b>	<b>34907</b>	<b>5750</b>	<b>1901</b>	<b>1507</b>	<b>36666</b>	<b>3330</b>	<b>1895</b>	<b>1378</b>	<b>32.89</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	1438	1966	1260	34.93	1455	34.50	0.42
Rihand I STPS	1000	360	415	365	8.71	363	8.64	0.08
Rihand II STPS	1000	935	1013	1021	22.66	944	22.44	0.22
Rihand III STPS	500		0	0	0.00	0		0.00
Dadri I STPS	840	769	842	841	18.62	776	18.46	0.16
Dadri II STPS	980	758	898	689	18.34	764	18.18	0.16
Unchahar I TPS	420	305	353	332	7.42	309	7.32	0.10
Unchahar II TPS	420	289	330	339	6.88	287	6.93	-0.05
Unchahar III TPS	210	153	182	167	3.69	154	3.66	0.03
ISTPP (Jhajjar)	1000	809	870	756	18.37	766	17.85	0.52
Dadri GPS	830	755	747	752	17.32	722	17.14	0.18
Anta GPS	419	388	392	391	9.21	384	8.74	0.47
Auraiya GPS	663	386	296	301	7.03	293	7.72	-0.69
<b>Sub Total (A)</b>	<b>10282</b>	<b>7344</b>	<b>8304</b>	<b>7214</b>	<b>173.18</b>	<b>7216</b>	<b>171.56</b>	<b>1.61</b>
<b>B. NPC</b>								
NAPS	440	253	291	294	6.15	256	6.07	0.08
RAPS- B	440	197	221	219	4.73	197	4.73	0.01
RAPS- C	440	200	230	239	4.94	206	4.80	0.14
<b>Sub Total (B)</b>	<b>1320</b>	<b>650</b>	<b>742</b>	<b>752</b>	<b>15.83</b>	<b>660</b>	<b>15.60</b>	<b>0.23</b>
<b>C. NHPC</b>								
Chamera I HPS	540	432	360	540	9.95	415	10.11	-0.16
Chamera II HPS	300	300	303	303	7.22	301	7.22	-0.01
Chamera III HPS	231	225	79	77	5.35	223	5.43	-0.08
Bairasuil HPS	180	182	80	100	1.78	74	1.82	-0.04
Salal-HPS	690	657	658	658	15.74	656	15.77	-0.03
Tanakpur-HPS	94	82	90	73	1.99	83	1.90	0.09
Uri-HPS	480	471	480	480	11.63	485	11.52	0.11
Dhauliganga-HPS	280	277	281	282	6.78	283	6.74	0.05
Dulhasi-HPS	390	387	406	403	9.26	386	8.97	0.29
Sewa-II HPS	120	80	50	41	0.59	24	0.54	0.05
<b>Sub Total (C)</b>	<b>3305</b>	<b>3092</b>	<b>2787</b>	<b>2957</b>	<b>70.30</b>	<b>2929</b>	<b>70.02</b>	<b>0.28</b>
<b>D. NJPC</b>								
Nathpa Jhakri	1500	1605	1616	1613	38.73	1614	38.52	0.21
<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>1616</b>	<b>1613</b>	<b>38.73</b>	<b>1614</b>	<b>38.52</b>	<b>0.21</b>
<b>E. THDC</b>								
Tehri HPS	1000	403	323	518	5.25	219	5.00	0.25
Koteshwar HPS	400	230	0	229	2.00	83	1.95	0.05
<b>Sub Total (E)</b>	<b>1400</b>	<b>633</b>	<b>323</b>	<b>747</b>	<b>7.25</b>	<b>302</b>	<b>6.95</b>	<b>0.30</b>
<b>F. BBMB</b>								
Bhakra HPS	1480	771	1194	697	19.22	801	18.51	0.71
Dehar HPS	990	611	825	600	14.71	613	14.68	0.03
Pong HPS	396	239	300	159	5.95	248	5.01	0.94
<b>Sub Total (F)</b>	<b>2866</b>	<b>1622</b>	<b>2319</b>	<b>1456</b>	<b>39.88</b>	<b>1662</b>	<b>38.19</b>	<b>1.69</b>
<b>G. IPP(s)/JV(s)</b>								
ADHPL HPS(IPP)	192	0	227	198	4.12	172	4.25	-0.13
KWHEP HPS(IPP)	1000	0	1200	1200	28.59	1191	28.45	0.14
Malana Stg-II HPS	100	93	109	100	2.32	97	2.03	0.29
Shree Cement TPS	300	0	0	143	2.21	92	2.35	-0.14
Budhil HPS(IPP)	70	35	35	35	0.82	34	0.82	0.00
<b>Sub Total (G)</b>	<b>1662</b>	<b>93</b>	<b>1571</b>	<b>1676</b>	<b>38.06</b>	<b>1586</b>	<b>37.08</b>	<b>0.98</b>
<b>H. Total Regional Entities (A-G)</b>	<b>22336</b>	<b>15038</b>	<b>17662</b>	<b>16415</b>	<b>383.23</b>	<b>15968</b>	<b>377.93</b>	<b>5.30</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	1039	1046	22.96	957	
	Guru Nanak Dev TPS(Bhatinda)	440	202	209	4.48	187	
	Guru Hargobind Singh TPS(L.mbt)	920	914	936	20.37	849	
	Thermal (Total)	2620	2155	2191	47.81	1992	
	Total Hydro	1148	759	745	17.82	742	
	<b>Total Punjab</b>	<b>3768</b>	<b>2914</b>	<b>2936</b>	<b>65.62</b>	<b>2734</b>	
Haryana	Panipat TPS	1367	1098	1132	26.72	1113	
	DCRTPP (Yamuna nagar)	600	0	0	0.00	0	
	Faridabad GPS (NTPC)	432	378	384	9.00	375	
	RGTPP (kheadar) (IPP)	1200	0	520	10.03	418	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	1320	0	310	5.66	236	
	Thermal (Total)	4944	1476	2346	51.40	2142	
	Total Hydro	62	31	32	1.07	45	
	<b>Total Haryana</b>	<b>5006</b>	<b>1507</b>	<b>2378</b>	<b>52.48</b>	<b>2186</b>	
Rajasthan	kota TPS	1240	865	849	20.40	850	
	suratgarh TPS	1500	877	869	20.74	864	
	Chabra TPS	500	209	220	5.18	216	
	Dholpur GPS	330	220	138	4.52	188	
	Ramgarh GPS	111	0	62	1.24	52	
	RAPS A (NPC)	300	181	181	4.26	178	
	Barsingsar (NLC)	250	88	178	2.61	109	
	Giral LTPS	250	83	44	1.21	50	
	Rajwest LTPS (IPP)	540	211	211	4.90	204	
	VSLP LTPS (IPP)	135	0	0	0.00	0	
	Thermal (Total)	5156	2734	2752	65.08	2712	
	Total Hydro	550	0	0	0.09	4	
	Wind power	1843	147	758	6.93	289	
	Biomass	91	35	35	0.85	35	
	Solar	128	0	0	0.18	8	
	Renewable/Others (Total)	2062	182	793	8.06	336	
	<b>Total Rajasthan</b>	<b>7767</b>	<b>2916</b>	<b>3545</b>	<b>73.23</b>	<b>3051</b>	
	UP	Anpara TPS	1630	629	762	15.50	646
		Obra TPS	1382	490	485	10.50	438
Paricha TPS		890	397	453	8.30	346	
Panki TPS		210	165	140	3.30	138	
Harduaganj TPS		665	36	34	0.60	25	
Tanda TPS (NTPC)		440	291	294	7.22	301	
Roza TPS (IPP)		1200	549	548	13.10	546	
Anpara-C (IPP)		1200	388	229	7.07	295	
Bajaj Energy Pvt.Ltd(IPP) TPS		450	182	194	4.39	183	
Thermal (Total)		8067	3127	3139	69.99	2916	
Vishnuparyag HPS (IPP)		400	436	436	10.45	435	
Other Hydro		527	113	0	2.67	111	
Cogeneration		981	50	50	1.20	50	
<b>Total UP</b>		<b>9975</b>	<b>3726</b>	<b>3625</b>	<b>84.31</b>	<b>3077</b>	
Uttarakhand		Total Hydro	1303	731	609	17.52	730
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>731</b>	<b>609</b>	<b>17.52</b>	<b>730</b>	
Delhi	Rajghat TPS	135	52	49	1.20	50	
	Delhi Gas Turbine	282	218	219	5.16	215	
	Pragati Gas Turbine	330	281	285	6.82	284	
	Rithala GPS	108	20	60	1.07	45	
	Bawana GPS	677	416	409	9.48	395	
	Badarpur TPS (NTPC)	705	550	535	11.82	493	
	Thermal (Total)	2237	1537	1557	35.55	1481	
	<b>Total Delhi</b>	<b>2237</b>	<b>1537</b>	<b>1557</b>	<b>35.55</b>	<b>1481</b>	
HP	Baspa HPS (IPP)	330	330	330	7.92	330	
	Malana HPS (IPP)	86	96	87	1.97	82	
	Other Hydro	589	431	452	10.71	446	
	<b>Total HP</b>	<b>1005</b>	<b>857</b>	<b>869</b>	<b>21</b>	<b>859</b>	
J & K	Baglihar HPS (IPP)	450	477	475	10.55	440	
	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>662</b>	<b>685</b>	<b>15.28</b>	<b>637</b>	
<b>Total State Control Area Generation</b>		<b>32017</b>	<b>14850</b>	<b>16204</b>	<b>364.60</b>	<b>14756</b>	
<b>J. Net Inter Regional Exchange (Import (+ve)/Export (-ve))</b>			<b>4143</b>	<b>5956</b>	<b>113.69</b>	<b>4737</b>	
<b>Total Regional Availability(Gross)</b>		<b>54353</b>	<b>36655</b>	<b>38575</b>	<b>861.52</b>	<b>35461</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	8581	8271	191.19	7966
State Control Area Hydro	5368	3153	2940	85.52	3128
<b>Total Regional Hydro</b>	<b>15731</b>	<b>11734</b>	<b>11211</b>	<b>276.71</b>	<b>11094</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	-100	0	500	0.00	4.91	-4.91
Gwalior-Agra (D/C)	992	1374	1390	0	24.97	0.00	24.97
Zerda-Kankroli	581	304	602	100	6.99	0.00	6.99
Zerda-Bhinmal	0	362	578	43	3.20	0.00	3.20
Malanpur-Auraiya	-47	71	78	47	0.00	0.09	-0.09
Badod-Kota/Morak	0	0	0	0	0.00	0.00	0.00
Mundra-Mohindergarh(HVDC)	593	593	593	0	14.29	0.00	14.29
<b>Sub Total WR</b>	<b>1819</b>	<b>2604</b>			<b>49.45</b>	<b>5.00</b>	<b>44.46</b>
Pusauli Bypass	250	250	250	0	5.29	0.00	5.29
MZP- GKP (D/C)	850	1260	1260	0	25.33	0.00	25.33
Patna-Balia(D/C)	585	644	796	0	15.26	0.00	15.26
B'Sharif-Balia (D/C)	384	734	734	0	14.06	0.00	14.06
Barh - Balia(D/C)	0	0	0	0	0.00	0.00	0.00
Pusauli-Balia	14	96	102	0	1.67	0.00	1.67
Gayaa-Fatehpur (765 Kv)	150	269	294	0	5.64	0.00	5.64
Pusauli-Sahupuri	136	124	175	0	2.96	0.00	2.96
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>2324</b>	<b>3352</b>			<b>70.20</b>	<b>0.97</b>	<b>69.24</b>
<b>Total IR Exch</b>	<b>4143</b>	<b>5956</b>			<b>119.66</b>	<b>5.96</b>	<b>113.69</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
19.91	3.82	23.74	-0.78	40.47	5.25	7.99	0.00	0.00

  

Total IR Schedule (MU)			Total IR Actual (MU)			Net IR UI (MU)		
Through ER	Through WR	Total	Through ER	Through WR	Total	Through ER	Through WR	Total
28.21	47.90	76.11	69.24	44.46	113.69	41.03	-3.44	37.59

**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
0.00	3.00	15.20	64.50	89.70	35.50	10.30	0.70	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				
50.08	14.05	48.81	6.24	49.42	3.80	0.22	49.92	49.08

**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	417	07:46	401	22:08	0.0	0.0	0.0	0.0
Gorakhpur	400	433	07:48	390	03:02	0.0	0.0	15.0	1.9
Bareilly	400	418	06:58	389	03:32	0.0	0.1	0.0	0.0
Kanpur	400	422	07:46	398	11:02	0.0	0.0	0.9	0.0
Dadri	400	417	06:02	397	15:13	0.0	0.0	0.0	0.0
Ballabgarh	400	421	06:02	398	15:12	0.0	0.0	1.9	0.0
Bawana	400	420	18:59	402	12:19	0.0	0.0	0.0	0.0
Bassi	400	431	06:04	394	15:13	0.0	0.0	6.7	0.1
Hissar	400	415	19:00	394	12:14	0.0	0.0	0.0	0.0
Moga	400	416	07:39	400	12:15	0.0	0.0	0.0	0.0
Abdullapur	400	420	18:59	404	12:13	0.0	0.0	0.0	0.0
Nalagarh	400	411	20:00	399	05:00	0.0	0.0	0.0	0.0
Kishenpur	400	414	07:36	402	12:19	0.0	0.0	0.0	0.0
Wagoora	400	411	07:36	394	03:28	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	474.38	340.29	492.80	827.99	946.52	676.01
Pong	426.72	384.05	392.62	88.85	412.61	588.94	262.72	498.55
Tehri	829.79	740.04	764.50	153.15	818.65	982.26	365.90	159.00
Koteswar	612.50	598.50	599.80	0.45	NA	NA	159.00	133.00
Chamera-I	760.00	748.75	750.48	10.00	NA	NA	261.42	270.22
Rihand	268.22	252.98	254.02	38.60	257.04	160.70	NA	NA
RPS	352.80	343.81	349.95	NA	NA	NA	NA	NA
Jawahar Sagar	298.70	295.78	298.21	NA	NA	NA	NA	NA
RSD	527.91	487.91	501.72	NA	509.17	NA	319.44	309.93

\* NA: Not Available

**IX. System Constraints:**

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

**XI. Weather Conditions For 21.07.2012 :**

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 : 21.07.2012

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER