

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 24.07.2012

Date of Reporting : 25.07.2012

### 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
36700	6202	42902	49.54	38086	5120	43206	49.41	889.1	125.32

\* 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	48.28	20.47		68.75	108.95	114.65	5.70	183.40	38.15
Haryana	35.90	0.94		36.83	76.05	89.73	13.68	126.57	28.05
Rajasthan	59.33	0.00	31.70	91.03	50.02	61.01	10.99	152.04	2.97
Delhi	35.34			35.34	82.37	74.35	-8.02	109.69	0.28
UP	69.07	12.11	1.20	82.38	104.84	145.13	40.29	227.50	49.74
Uttarakhand		17.18		17.18	12.14	13.69	1.54	30.86	2.82
HP		20.97		20.97	3.80	3.05	-0.75	24.02	0.37
J & K		15.21	0.00	15.21	13.87	13.66	-0.21	28.87	2.95
Chandigarh				0.00	6.71	6.14	-0.57	6.14	0.00
<b>Total</b>	<b>247.91</b>	<b>86.87</b>	<b>32.90</b>	<b>367.69</b>	<b>458.75</b>	<b>521.40</b>	<b>62.65</b>	<b>889.08</b>	<b>125.32</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	8109	2134	439	2130	7889	1423	310	1924		50.10
Haryana	5398	1527	504	1150	4852	1547	268	1139		27.67
Rajasthan	6322	266	440	210	6423	0	96	-224		5.21
Delhi	5007	0	232	722	4156	0	-482	572		14.81
UP	7740	1925	702	222	11155	2050	2349	1787		17.39
Uttarakhand	1377	150	131	-5	1336	0	145	1		0.26
HP	962	49	-77	-885	941	0	-38	-932		-21.19
J&K	1503	150	235	-397	1111	100	-67	-397		-9.76
Chandigarh	282	0	-8	39	224	0	-14	0		1.06
<b>Total</b>	<b>36700</b>	<b>6202</b>	<b>2597</b>	<b>3188</b>	<b>38086</b>	<b>5120</b>	<b>2566</b>	<b>3869</b>		<b>85.55</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	1880	2034	2038	45.22	1884	45.12	0.09
Rihand I STPS	1000	420	462	457	10.15	423	10.08	0.07
Rihand II STPS	1000	938	1007	1014	22.65	944	22.51	0.14
Rihand III STPS	500		0	0	0.00	0		0.00
Dadri I STPS	840	769	850	815	18.14	756	17.97	0.17
Dadri II STPS	980	763	925	769	18.39	766	18.18	0.21
Unchahar I TPS	420	316	325	369	7.61	317	7.57	0.04
Unchahar II TPS	420	316	318	375	7.65	319	7.57	0.07
Unchahar III TPS	210	174	186	212	4.19	175	4.16	0.03
ISTPP (Jhajjar)	1000	884	856	754	19.63	818	19.37	0.26
Dadri GPS	830	734	731	753	17.48	729	17.61	-0.12
Anta GPS	419	387	391	392	9.36	390	9.28	0.07
Auraiya GPS	663	386	300	379	7.72	322	8.38	-0.66
<b>Sub Total (A)</b>	<b>10282</b>	<b>7966</b>	<b>8385</b>	<b>8327</b>	<b>188.19</b>	<b>7841</b>	<b>187.80</b>	<b>0.38</b>
<b>B. NPC</b>								
NAPS	440	256	288	289	6.12	255	6.14	-0.03
RAPS- B	440	198	217	219	4.73	197	4.75	-0.02
RAPS- C	440	400	447	460	9.78	408	9.60	0.18
<b>Sub Total (B)</b>	<b>1320</b>	<b>854</b>	<b>952</b>	<b>968</b>	<b>20.63</b>	<b>860</b>	<b>20.50</b>	<b>0.13</b>
<b>C. NHPC</b>								
Chamera I HPS	540	356	360	360	8.60	358	8.50	0.11
Chamera II HPS	300	300	302	302	7.19	299	7.20	-0.01
Chamera III HPS	231	231	233	235	5.56	232	5.59	-0.04
Bairasuil HPS	180	182	122	120	2.31	96	2.14	0.16
Salal-HPS	690	656	657	657	15.78	657	15.73	0.05
Tanakpur-HPS	94	90	93	95	2.11	88	2.16	-0.05
Uri-HPS	480	468	480	480	11.48	478	11.56	-0.08
Dhauliganga-HPS	280	277	282	283	6.77	282	6.80	-0.03
Dulhasi-HPS	390	387	407	405	9.24	385	9.26	-0.02
Sewa-II HPS	120	80	53	0	0.47	20	0.44	0.02
<b>Sub Total (C)</b>	<b>3305</b>	<b>3026</b>	<b>2989</b>	<b>2937</b>	<b>69.50</b>	<b>2896</b>	<b>69.38</b>	<b>0.12</b>
<b>D.NJPC</b>								
Nathpa Jhakri	1500	1605	1611	1608	38.62	1609	38.52	0.10
<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>1611</b>	<b>1608</b>	<b>38.62</b>	<b>1609</b>	<b>38.52</b>	<b>0.10</b>
<b>E. THDC</b>								
Tehri HPS	1000	414	158	715	5.09	212	5.00	0.09
Koteshwar HPS	400	230	0	224	1.96	82	1.95	0.01
<b>Sub Total (E)</b>	<b>1400</b>	<b>644</b>	<b>158</b>	<b>939</b>	<b>7.05</b>	<b>294</b>	<b>6.95</b>	<b>0.10</b>
<b>F. BBMB</b>								
Bhakra HPS	1480	760	1204	558	18.67	778	18.25	0.42
Dehar HPS	990	607	660	585	14.83	618	14.57	0.27
Pong HPS	396	197	294	156	4.87	203	5.01	-0.14
<b>Sub Total (F)</b>	<b>2866</b>	<b>1564</b>	<b>2158</b>	<b>1299</b>	<b>38.37</b>	<b>1599</b>	<b>37.82</b>	<b>0.55</b>
<b>G. IPP(s)/JV(s)</b>								
ADHPL HPS(IPP)	192	0	231	232	5.12	213	4.28	0.84
KWHEP HPS(IPP)	1000	0	1200	1200	28.64	1193	28.63	0.02
Malana Stg-II HPS	100	86	108	107	2.38	99	2.06	0.32
Shree Cement TPS	300	0	140	144	3.37	140	3.07	0.30
Budhil HPS(IPP)	70	70	36	36	0.98	41		0.98
<b>Sub Total (G)</b>	<b>1662</b>	<b>86</b>	<b>1749</b>	<b>1719</b>	<b>40.49</b>	<b>1687</b>	<b>38.03</b>	<b>2.46</b>
<b>H. Total Regional Entities (A-G)</b>	<b>22336</b>	<b>15745</b>	<b>18002</b>	<b>17797</b>	<b>402.85</b>	<b>16785</b>	<b>399.00</b>	<b>3.85</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	1035	1213	23.98	999	
	Guru Nanak Dev TPS(Bhatinda)	440	205	210	4.47	186	
	Guru Hargobind Singh TPS(L.mbt)	920	884	890	19.83	826	
	Thermal (Total)	2620	2124	2313	48.28	2012	
	Total Hydro	1148	874	888	20.47	853	
	<b>Total Punjab</b>	<b>3768</b>	<b>2998</b>	<b>3201</b>	<b>68.75</b>	<b>2865</b>	
Haryana	Panipat TPS	1367	862	815	21.02	876	
	DCRTPP (Yamuna nagar)	600	0	0	0.00	0	
	Faridabad GPS (NTPC)	432	378	380	8.88	370	
	RGTPP (kheadar) (IPP)	1200	346	194	6.00	250	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	1320	0	0	0.00	0	
	Thermal (Total)	4944	1586	1389	35.90	1496	
	Total Hydro	62	27	25	0.94	39	
	<b>Total Haryana</b>	<b>5006</b>	<b>1613</b>	<b>1414</b>	<b>36.83</b>	<b>1535</b>	
Rajasthan	kota TPS	1240	665	851	16.33	680	
	suratgarh TPS	1500	1011	876	21.74	906	
	Chabra TPS	500	222	216	5.31	221	
	Dholpur GPS	330	140	138	3.33	139	
	Ramgarh GPS	111	52	30	0.94	39	
	RAPS A (NPC)	300	191	170	4.29	179	
	Barsingsar (NLC)	250	115	115	2.64	110	
	Giral LTPS	250	112	116	2.00	83	
	Rajwest LTPS (IPP)	540	122	122	2.76	115	
	VSLP LTPS (IPP)	135	0	0	0.00	0	
	Thermal (Total)	5156	2630	2634	59.33	2472	
	Total Hydro	550	0	0	0.00	0	
	Wind power	1843	1199	1412	30.65	1277	
	Biomass	91	30	30	0.72	30	
	Solar	128	0	0	0.34	14	
	Renewable/Others (Total)	2062	1229	1442	31.70	1321	
	<b>Total Rajasthan</b>	<b>7767</b>	<b>3859</b>	<b>4076</b>	<b>91.03</b>	<b>3793</b>	
	UP	Anpara TPS	1630	868	850	20.70	863
		Obra TPS	1382	313	313	7.70	321
Paricha TPS		890	544	544	13.00	542	
Panki TPS		210	149	113	3.30	138	
Harduaganj TPS		665	9	32	0.70	29	
Tanda TPS (NTPC)		440	294	290	7.29	304	
Roza TPS (IPP)		1200	540	549	13.02	542	
Anpara-C (IPP)		1200	0	0	0.00	0	
Bajaj Energy Pvt.Ltd(IPP) TPS		450	126	181	3.36	140	
Thermal (Total)		8067	2843	2872	69.07	2878	
Vishnuparyag HPS (IPP)		400	397	436	9.87	411	
Other Hydro		527	63	0	2.25	94	
Cogeneration		981	50	50	1.20	50	
<b>Total UP</b>		<b>9975</b>	<b>3353</b>	<b>3358</b>	<b>82.38</b>	<b>3021</b>	
Uttarakhand		Total Hydro	1303	802	595	17.18	716
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>802</b>	<b>595</b>	<b>17.18</b>	<b>716</b>	
Delhi	Rajghat TPS	135	50	50	1.15	48	
	Delhi Gas Turbine	282	212	182	4.85	202	
	Pragati Gas Turbine	330	280	282	6.89	287	
	Rithala GPS	108	20	20	0.66	28	
	Bawana GPS	677	188	413	8.07	336	
	Badarpur TPS (NTPC)	705	620	630	13.71	571	
	Thermal (Total)	2237	1370	1577	35.34	1472	
	<b>Total Delhi</b>	<b>2237</b>	<b>1370</b>	<b>1577</b>	<b>35.34</b>	<b>1472</b>	
HP	Baspa HPS (IPP)	330	330	330	7.92	330	
	Malana HPS (IPP)	86	106	108	2.48	104	
	Other Hydro	589	440	437	10.56	440	
	<b>Total HP</b>	<b>1005</b>	<b>876</b>	<b>875</b>	<b>21</b>	<b>874</b>	
J & K	Baglihar HPS (IPP)	450	438	438	10.48	437	
	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>623</b>	<b>648</b>	<b>15.21</b>	<b>634</b>	
<b>Total State Control Area Generation</b>		<b>32017</b>	<b>15494</b>	<b>15744</b>	<b>367.69</b>	<b>14909</b>	
<b>J. Net Inter Regional Exchange (Import (+ve)/Export (-ve))</b>			<b>5232</b>	<b>5754</b>	<b>135.86</b>	<b>5661</b>	
<b>Total Regional Availability(Gross)</b>		<b>54353</b>	<b>38728</b>	<b>39295</b>	<b>906.40</b>	<b>37356</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	8455	8322	189.68	7903
State Control Area Hydro	5368	3265	3031	86.87	3209
<b>Total Regional Hydro</b>	<b>15731</b>	<b>11720</b>	<b>11353</b>	<b>276.55</b>	<b>11112</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	400	500	0	11.11	0.00	11.11
Gwalior-Agra (D/C)	1170	1285	1464	0	29.35	0.00	29.35
Zerda-Kankroli	0	0	273	0	0.92	0.00	0.92
Zerda-Bhinmal	289	294	458	0	6.08	0.00	6.08
Malanpur-Auraiya	7	40	79	0	1.00	0.00	1.00
Badod-Kota/Morak	229	185	291	0	5.21	0.00	5.21
Mundra-Mohindergarh(HVDC)	590	591	593	0	14.39	0.00	14.39
<b>Sub Total WR</b>	<b>2785</b>	<b>2795</b>			<b>68.07</b>	<b>0.00</b>	<b>68.07</b>
Pusauli Bypass	250	250	250	0	6.07	0.00	6.07
MZP- GKP (D/C)	910	1014	1160	0	24.28	0.00	24.28
Patna-Balia(D/C)	601	555	643	0	13.38	0.00	13.38
B'Sharif-Balia (D/C)	371	549	599	0	11.86	0.00	11.86
Barh - Balia(D/C)	0	339	354	0	5.99	0.00	5.99
Pusauli-Balia	80	50	94	0	0.11	0.00	0.11
Gayaa-Fatehpur (765 Kv)	144	62	288	0	4.01	0.00	4.01
Pusauli-Sahupuri	136	165	167	0	3.01	0.00	3.01
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-45	-25	0	48	0.00	0.90	-0.90
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>2447</b>	<b>2959</b>			<b>68.69</b>	<b>0.90</b>	<b>67.79</b>
<b>Total IR Exch</b>	<b>5232</b>	<b>5754</b>			<b>136.76</b>	<b>0.90</b>	<b>135.86</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
23.47	3.72	27.19	-3.16	40.51	8.20	6.21	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
32.22	47.35	79.57	67.79	68.07	135.86	35.57	20.72	56.29

**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	1.70	6.40	36.30	77.00	63.70	23.00	0.30	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				
50.12	6.06	48.82	22.10	49.54	2.51	0.21	49.97	0.00

**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	405	17:58	398	1:04	0.0	0.0	0.0	0.0
Gorakhpur	400	425	18:34	398	2:26	0.0	0.0	18.7	0.0
Bareilly	400	415	19:39	385	1:09	0.0	0.6	0.0	0.0
Kanpur	400	414	6:05	398	1:05	0.0	0.0	0.0	0.0
Dadri	400	412	6:01	391	14:13	0.0	0.0	0.0	0.0
Ballabgarh	400	417	6:01	392	14:15	0.0	0.0	0.0	0.0
Bawana	400	415	5:58	397	1:06	0.0	0.0	0.0	0.0
Bassi	400	421	6:03	390	8:42	0.0	0.0	0.3	0.0
Hissar	400	406	5:58	382	1:04	0.0	4.0	0.0	0.0
Moga	400	415	21:01	388	1:04	0.0	0.4	0.0	0.0
Abdullapur	400	416	5:59	395	1:06	0.0	0.0	0.0	0.0
Nalagarh	400	409	19:40	397	16:39	0.0	0.0	0.0	0.0
Kishenpur	400	414	6:06	397	1:03	0.0	0.0	0.0	0.0
Wagoora	400	412	6:06	393	19:50	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	474.64	345.61	493.18	838.00	867.06	663.01
Pong	426.72	384.05	392.32	84.61	412.73	588.94	159.79	482.86
Tehri	829.79	740.04	765.20	165.00	818.65	982.26	345.35	151.00
Koteshwar	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 24.07.2012 :**

1: Scattered Rain 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 : 24.07.2012

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER