

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 28.07.2012

Date of Reporting : 29.07.2012

### 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
36734	5512	42245	49.62	38358	2808	41166	49.78	875.0	98.27

\* 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	20.44		68.72	111.86	114.65	2.78	183.37	38.15
Haryana	52.45	0.72		53.17	69.05	77.89	8.83	131.05	11.50
Rajasthan	78.18	0.00	14.94	93.11	51.96	55.29	3.33	148.40	1.72
Delhi	29.19			29.19	73.60	67.05	-6.55	96.24	0.37
UP	77.82	10.46	1.20	89.48	97.57	135.29	37.72	224.77	40.55
Uttarakhand		20.06		20.06	10.89	10.25	-0.64	30.31	3.03
HP		22.78		22.78	3.54	1.42	-2.11	24.20	0.01
J & K		15.18	0.00	15.18	17.68	15.55	-2.13	30.73	2.95
Chandigarh				0.00	6.68	5.92	-0.77	5.92	0.00
<b>Total</b>	<b>285.92</b>	<b>89.63</b>	<b>16.14</b>	<b>391.69</b>	<b>442.84</b>	<b>483.30</b>	<b>40.46</b>	<b>874.99</b>	<b>98.27</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	537	2016	7889	1423	211	2087	53.07	
Haryana	5405	733	315	1114	5586	529	506	1079	26.43	
Rajasthan	5679	398	136	299	6220	0	-932	-199	6.89	
Delhi	4267	2	-20	373	3734	16	-380	109	7.59	
UP	9170	1945	1306	199	11389	740	2789	2249	12.53	
Uttarakhand	1345	150	68	16	1340	0	-28	-5	0.06	
HP	885	0	-144	-984	908	0	-82	-1029	-22.13	
J&K	1605	150	177	-208	1065	100	-198	-208	-5.63	
Chandigarh	269	0	-26	39	228	0	-12	10	1.14	
<b>Total</b>	<b>36734</b>	<b>5512</b>	<b>2348</b>	<b>2863</b>	<b>38358</b>	<b>2808</b>	<b>1873</b>	<b>4094</b>	<b>79.95</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	2050	2039	45.26	1886	45.12	0.14
Rihand I STPS	1000	443	493	480	10.73	447	10.63	0.09
Rihand II STPS	1000	868	1023	993	20.85	869	20.84	0.01
Rihand III STPS	500		0	0	0.00	0		0.00
Dadri I STPS	840	769	810	835	18.45	769	18.46	-0.01
Dadri II STPS	980	763	991	720	18.54	773	18.32	0.22
Unchahar I TPS	420	336	364	363	8.13	339	8.06	0.08
Unchahar II TPS	420	336	367	93	8.13	339	8.06	0.08
Unchahar III TPS	210	174	192	187	4.21	176	4.18	0.03
ISTPP (Jhajjar)	1000	438	387	390	8.64	360	8.74	-0.10
Dadri GPS	830	558	558	548	12.56	523	12.58	-0.03
Anta GPS	419	391	390	377	8.77	366	8.57	0.20
Auraiya GPS	663	391	295	299	6.94	289	7.87	-0.93
<b>Sub Total (A)</b>	<b>10282</b>	<b>7347</b>	<b>7920</b>	<b>7324</b>	<b>171.22</b>	<b>7134</b>	<b>171.42</b>	<b>-0.20</b>
<b>B. NPC</b>								
NAPS	440	258	297	292	6.18	258	6.19	-0.01
RAPS- B	440	400	439	446	9.59	400	9.60	-0.01
RAPS- C	440	400	463	455	9.95	414	9.60	0.35
<b>Sub Total (B)</b>	<b>1320</b>	<b>1058</b>	<b>1199</b>	<b>1193</b>	<b>25.72</b>	<b>1072</b>	<b>25.39</b>	<b>0.33</b>
<b>C. NHPC</b>								
Chamera I HPS	540	356	360	360	8.59	358	8.54	0.04
Chamera II HPS	300	300	303	301	7.18	299	7.20	-0.02
Chamera III HPS	231	231	234	233	5.53	230	5.55	-0.02
Bairasuil HPS	180	156	120	120	2.14	89	2.18	-0.04
Salal-HPS	690	660	661	661	15.79	658	15.84	-0.05
Tanakpur-HPS	94	94	94	94	2.23	93	2.24	-0.01
Uri-HPS	480	435	448	464	10.96	457	10.66	0.29
Dhauliganga-HPS	280	277	282	282	6.67	278	6.78	-0.12
Dulhasi-HPS	390	387	407	337	9.25	385	9.30	-0.05
Sewa-II HPS	120	80	0	39	0.53	22	0.52	0.01
<b>Sub Total (C)</b>	<b>3305</b>	<b>2974</b>	<b>2909</b>	<b>2891</b>	<b>68.86</b>	<b>2869</b>	<b>68.82</b>	<b>0.04</b>
<b>D. NJPC</b>								
Nathpa Jhakri	1500	1605	1615	1610	38.72	1613	38.52	0.20
<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>1615</b>	<b>1610</b>	<b>38.72</b>	<b>1613</b>	<b>38.52</b>	<b>0.20</b>
<b>E. THDC</b>								
Tehri HPS	1000	780	0	543	5.11	213	5.00	0.11
Koteshwar HPS	400	288	83	82	1.86	77	1.85	0.01
<b>Sub Total (E)</b>	<b>1400</b>	<b>1068</b>	<b>83</b>	<b>625</b>	<b>6.97</b>	<b>290</b>	<b>6.85</b>	<b>0.12</b>
<b>F. BBMB</b>								
Bhakra HPS	1480	789	1227	627	19.41	809	18.93	0.48
Dehar HPS	990	603	825	620	14.86	619	14.47	0.39
Pong HPS	396	181	306	108	4.54	189	5.01	-0.47
<b>Sub Total (F)</b>	<b>2866</b>	<b>1572</b>	<b>2358</b>	<b>1355</b>	<b>38.81</b>	<b>1617</b>	<b>38.40</b>	<b>0.41</b>
<b>G. IPP(s)/JV(s)</b>								
ADHPL HPS(IPP)	192	0	227	214	4.92	205	4.57	0.35
KWHEP HPS(IPP)	1000	0	1200	1200	28.59	1191	28.63	-0.04
Malana Stg-II HPS	100	0	106	108	2.56	107	2.09	0.48
Shree Cement TPS	300	0	294	283	6.85	285	6.14	0.71
Budhil HPS(IPP)	70	0	70	69	1.62	68		1.62
<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1897</b>	<b>1874</b>	<b>44.54</b>	<b>1856</b>	<b>41.43</b>	<b>3.11</b>
<b>H. Total Regional Entities (A-G)</b>	<b>22336</b>	<b>15625</b>	<b>17981</b>	<b>16872</b>	<b>394.84</b>	<b>16452</b>	<b>390.83</b>	<b>4.00</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	20.44	852
	<b>Total Punjab</b>	<b>3768</b>	<b>2998</b>	<b>3201</b>	<b>68.72</b>	<b>2863</b>
Haryana	Panipat TPS	1367	1097	1100	26.63	1110
	DCRTPP (Yamuna nagar)	600	0	0	0.00	0
	Faridabad GPS (NTPC)	432	381	388	9.07	378
	RGTPP (kheadar) (IPP)	1200	302	326	7.45	310
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar (CLP)	1320	358	374	9.30	387
	Thermal (Total)	4944	2138	2188	52.45	2185
	Total Hydro	62	25	17	0.72	30
	<b>Total Haryana</b>	<b>5006</b>	<b>2163</b>	<b>2205</b>	<b>53.17</b>	<b>2215</b>
Rajasthan	kota TPS	1240	1043	1025	24.80	1033
	suratgarh TPS	1500	1104	1116	26.51	1104
	Chabra TPS	500	254	314	7.07	295
	Dholpur GPS	330	212	137	3.66	152
	Ramgarh GPS	111	65	63	1.66	69
	RAPS A (NPC)	300	183	183	4.34	181
	Barsingsar (NLC)	250	114	115	2.63	110
	Giral LTPS	250	22	39	0.50	21
	Rajwest LTPS (IPP)	540	255	303	7.02	292
	VSLP LTPS (IPP)	135	0	0	0.00	0
	Thermal (Total)	5156	3252	3295	78.18	3257
	Total Hydro	550	0	0	0.00	0
	Wind power	1843	453	1056	14.01	584
	Biomass	91	26	26	0.63	26
	Solar	128	0	0	0.30	12
	Renewable/Others (Total)	2062	479	1082	14.94	622
	<b>Total Rajasthan</b>	<b>7767</b>	<b>3731</b>	<b>4377</b>	<b>93.11</b>	<b>3880</b>
UP	Anpara TPS	1630	1121	1095	22.80	950
	Obra TPS	1382	533	383	9.60	400
	Paricha TPS	890	542	425	10.40	433
	Panki TPS	210	125	127	2.80	117
	Harduaganj TPS	665	33	34	0.70	29
	Tanda TPS (NTPC)	440	295	287	7.20	300
	Roza TPS (IPP)	1200	822	824	19.73	822
	Anpara-C (IPP)	1200	0	0	0.00	0
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	215	211	4.59	191
	Thermal (Total)	8067	3686	3386	77.82	3243
	Vishnuparyag HPS (IPP)	400	0	396	7.98	332
	Other Hydro	527	131	0	2.48	103
	Cogeneration	981	50	50	1.20	50
	<b>Total UP</b>	<b>9975</b>	<b>3867</b>	<b>3832</b>	<b>89.48</b>	<b>3396</b>
	Uttarakhand	Total Hydro	1303	857	853	20.06
<b>Total Uttarakhand</b>		<b>1303</b>	<b>857</b>	<b>853</b>	<b>20.06</b>	<b>836</b>
Delhi	Rajghat TPS	135	49	49	1.13	47
	Delhi Gas Turbine	282	185	153	3.80	158
	Pragati Gas Turbine	330	283	271	6.84	285
	Rithala GPS	108	0	20	0.10	4
	Bawana GPS	677	0	258	4.00	167
	Badarpur TPS (NTPC)	705	645	605	13.32	555
	Thermal (Total)	2237	1162	1356	29.19	1216
	<b>Total Delhi</b>	<b>2237</b>	<b>1162</b>	<b>1356</b>	<b>29.19</b>	<b>1216</b>
HP	Baspa HPS (IPP)	330	330	330	7.92	330
	Malana HPS (IPP)	86	104	70	2.38	99
	Other Hydro	589	517	516	12.47	520
	<b>Total HP</b>	<b>1005</b>	<b>951</b>	<b>916</b>	<b>23</b>	<b>949</b>
J & K	Baglihar HPS (IPP)	450	438	438	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>623</b>	<b>648</b>	<b>15.18</b>	<b>633</b>
<b>Total State Control Area Generation</b>		<b>32017</b>	<b>16352</b>	<b>17388</b>	<b>391.69</b>	<b>15988</b>
<b>J. Net Inter Regional Exchange (Import (+ve)/Export (-ve))</b>			<b>4227</b>	<b>6338</b>	<b>127.44</b>	<b>5310</b>
<b>Total Regional Availability(Gross)</b>		<b>54353</b>	<b>38560</b>	<b>40598</b>	<b>913.97</b>	<b>37750</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	8498	8003	189.43	7893
State Control Area Hydro	5368	3461	3322	89.63	3402
<b>Total Regional Hydro</b>	<b>15731</b>	<b>11959</b>	<b>11325</b>	<b>279.06</b>	<b>11295</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	10.05	0.00	10.05
Gwalior-Agra (D/C)	591	1110	1119	0	20.89	0.00	20.89
Zerda-Kankroli	0	319	319	0	2.08	0.00	2.08
Zerda-Bhinmal	211	332	627	0	7.78	0.00	7.78
Malanpur-Auraiya	26	93	0	93	1.95	0.00	1.95
Badod-Kota/Morak	236	227	210	0	3.50	0.00	3.50
Mundra-Mohindergarh(HVDC)	605	598	605	0	14.66	0.00	14.66
<b>Sub Total WR</b>	<b>2169</b>	<b>2979</b>			<b>60.91</b>	<b>0.00</b>	<b>60.91</b>
Pusauli Bypass	300	300	300	0	6.97	0.00	6.97
MZP- GKP (D/C)	616	1156	1190	0	23.46	0.00	23.46
Patna-Balia(D/C)	406	615	772	0	13.45	0.00	13.45
B'Sharif-Balia (D/C)	388	695	734	0	14.14	0.00	14.14
Barh - Balia(D/C)	248	376	376	0	6.10	0.00	6.10
Pusauli-Balia	0	83	88	0	0.04	0.00	0.04
Gayaa-Fatehpur (765 Kv)	0	0	0	0	0.00	0.00	0.00
Pusauli-Sahupuri	145	159	176	0	3.34	0.00	3.34
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>2058</b>	<b>3359</b>			<b>67.50</b>	<b>0.97</b>	<b>66.54</b>
<b>Total IR Exch</b>	<b>4227</b>	<b>6338</b>			<b>128.41</b>	<b>0.97</b>	<b>127.44</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
21.93	3.72	25.65	-2.27	38.50	0.41	3.88	0.00	0.05
<b>Total IR Schedule (MU)</b>								
Through ER	Through WR	Total	Through ER	Through WR	Total	Through ER	Through WR	Total
23.78	45.56	69.35	66.54	60.91	127.44	42.75	15.34	58.10

**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	0.00	1.90	18.20	60.00	81.50	39.70	3.40	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	7.06	49.03	19.22	49.65	1.64	0.20	50.20	49.25

**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	403	20:53	360	16:46	0.0	0.0	0.0	0.0
Gorakhpur	400	429	07:42	395	01:18	0.0	0.0	32.3	0.0
Bareilly	400	418	07:05	386	01:05	0.0	4.2	0.0	0.0
Kanpur	400	414	06:02	393	02:14	0.0	0.0	0.0	0.0
Dadri	400	414	06:02	394	09:44	0.0	0.0	0.0	0.0
Ballabgarh	400	420	06:02	395	09:45	0.0	0.0	0.0	0.0
Bawana	400	419	06:02	398	09:44	0.0	0.0	0.0	0.0
Bassi	400	424	06:04	403	03:00	40.8	40.8	2.0	0.0
Hissar	400	415	06:01	392	02:14	0.0	0.0	0.0	0.0
Moga	400	419	06:01	394	08:38	0.0	0.0	0.0	0.0
Abdullapur	400	417	06:01	399	09:43	0.0	0.0	0.0	0.0
Nalagarh	400	415	06:01	392	13:36	0.0	0.0	0.0	0.0
Kishenpur	400	417	06:02	402	13:36	0.0	0.0	0.0	0.0
Wagoora	400	412	06:03	390	21:11	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	477.76	407.63	497.49	994.96	1110.70	664.14
Pong	426.72	384.05	394.51	116.59	414.40	656.23	535.56	365.86
Tehri	829.79	740.04	775.70	270.00	818.65	982.26	665.57	144.00
Koteshwar	612.50	598.50	600.50	0.80	NA	NA	144.00	123.00
Chamera-I	760.00	748.75	NA	7.85	NA	NA	291.36	233.31
Rihand	268.22	252.98	254.75	60.80	258.68	234.80	NA	NA
RPS	352.80	343.81	349.97	NA	NA	NA	NA	NA
Jawahar Sagar	298.70	295.78	298.33	NA	NA	NA	NA	NA
RSD	527.91	487.91	499.14	NA	509.22	NA	200.14	473.71

\* NA: Not Available

**IX. System Constraints:**

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

**XI. Weather Conditions For 28.07.2012 :**

1: Cloudy 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 : 28.07.2012

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER