

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 27.07.2012  
Date of Reporting : 28.07.2012

### 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
35747	5932	41679	49.58	37148	3102	40250	49.67	861.6	116.15

\* 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	47.74	20.83		68.56	110.64	112.32	1.68	180.88	30.59
Haryana	41.87	0.86		42.73	62.43	74.44	12.01	117.17	27.58
Rajasthan	74.60	0.00	10.11	84.71	55.55	62.69	7.15	147.40	4.32
Delhi	32.94			32.94	79.64	67.93	-11.71	100.87	0.12
UP	72.57	12.59	1.20	86.36	94.12	136.64	42.52	223.00	46.87
Uttarakhand		20.14		20.14	11.25	10.57	-0.68	30.72	3.64
HP		21.89		21.89	4.27	1.92	-2.35	23.81	0.08
J & K		15.18	0.00	15.18	16.25	16.17	-0.09	31.35	2.95
Chandigarh				0.00	6.63	6.46	-0.18	6.46	0.00
<b>Total</b>	<b>269.71</b>	<b>91.49</b>	<b>11.31</b>	<b>372.51</b>	<b>440.79</b>	<b>489.13</b>	<b>48.35</b>	<b>861.65</b>	<b>116.15</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	
Punjab	7827	2183	120	2089	7601	1029	141	2093	52.73
Haryana	4893	1286	446	747	5485	593	765	750	19.15
Rajasthan	5646	258	288	145	6552	0	-159	-152	10.67
Delhi	4335	0	-301	595	3896	0	-670	357	11.96
UP	8844	1905	1298	199	10037	1380	2196	2047	8.64
Uttarakhand	1392	150	107	25	1382	0	5	0	0.19
HP	905	0	-145	-891	851	0	-228	-941	-21.25
J&K	1618	150	289	-328	1116	100	-111	-328	-8.02
Chandigarh	287	0	-7	39	228	0	-12	0	1.07
<b>Total</b>	<b>35747</b>	<b>5932</b>	<b>2095</b>	<b>2621</b>	<b>37148</b>	<b>3102</b>	<b>1927</b>	<b>3826</b>	<b>75.14</b>

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

### III. Regional Entities :

Entity	Station/ Constituent	Inst. Capacity (Effective) MW	Declared Capacity(MW)	Peak MW (Gross)	Off Peak MW (Gross)	Energy (Net MU)	Average Sentout(MW)	Schedule Net MU	UI Net MU
A. NTPC	Singrauli STPS	2000	1875	2020	1993	45.46	1894	45.01	0.45
	Rihand I STPS	1000	426	462	457	10.30	429	10.23	0.08
	Rihand II STPS	1000	940	1029	1014	22.79	949	22.56	0.23
	Rihand III STPS	500		0	0	0.00	0		0.00
	Dadri I STPS	840	769	853	836	18.51	771	18.46	0.05
	Dadri II STPS	980	763	985	700	18.42	767	18.32	0.10
	Unchahar I TPS	420	295	377	210	7.16	298	7.09	0.07
	Unchahar II TPS	420	294	380	315	7.13	297	7.07	0.07
	Unchahar III TPS	210	159	187	169	3.83	160	3.81	0.03
	IJSTPP (Jhajhar)	1000	489	504	464	11.71	488	11.70	0.01
	Dadri GPS	830	552	561	542	12.87	536	12.94	-0.07
	Anta GPS	419	389	394	354	9.20	383	8.91	0.29
	Auraiya GPS	663	391	285	302	6.93	289	8.07	-1.14
	<b>Sub Total (A)</b>	<b>10282</b>	<b>7344</b>	<b>8037</b>	<b>7356</b>	<b>174.30</b>	<b>7262</b>	<b>174.14</b>	<b>0.16</b>
B. NPC	NAPS	440	254	293	294	6.18	257	6.10	0.08
	RAPS- B	440	400	439	441	9.53	397	9.60	-0.07
	RAPS- C	440	400	459	456	9.79	408	9.60	0.19
	<b>Sub Total (B)</b>	<b>1320</b>	<b>1054</b>	<b>1191</b>	<b>1191</b>	<b>25.49</b>	<b>1062</b>	<b>25.30</b>	<b>0.19</b>
C. NHPC	Chamera I HPS	540	356	360	360	8.60	358	8.50	0.10
	Chamera II HPS	300	300	301	301	7.21	301	7.22	-0.01
	Chamera III HPS	231	231	79	78	5.37	224	5.56	-0.19
	Bairasuil HPS	180	182	122	120	2.12	88	2.21	-0.08
	Salal-HPS	690	656	661	661	15.83	660	15.81	0.02
	Tanakpur-HPS	94	94	95	95	2.23	93	2.24	-0.01
	Uri-HPS	480	453	448	464	10.96	457	11.14	-0.18
	Dhauliganga-HPS	280	277	280	280	6.80	283	6.79	0.01
	Dulhasti-HPS	390	387	403	404	9.28	387	9.24	0.05
	Sewa-II HPS	120	80	17	83	1.03	43	0.93	0.11
<b>Sub Total (C)</b>	<b>3305</b>	<b>3015</b>	<b>2766</b>	<b>2846</b>	<b>69.44</b>	<b>2893</b>	<b>69.63</b>	<b>-0.19</b>	
D.NJPC	Nathpa Jhakri	1500	1605	1616	1616	38.74	1614	38.52	0.22
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>1616</b>	<b>1616</b>	<b>38.74</b>	<b>1614</b>	<b>38.52</b>	<b>0.22</b>
E. THDC	Tehri HPS	1000	745	0	549	5.64	235	5.50	0.14
	Koteswar HPS	400	263	90	173	1.99	83	1.95	0.04
<b>Sub Total (E)</b>	<b>1400</b>	<b>1008</b>	<b>90</b>	<b>722</b>	<b>7.62</b>	<b>318</b>	<b>7.45</b>	<b>0.17</b>	
F. BBMB	Bhakra HPS	1480	776	1218	627	19.15	798	18.63	0.52
	Dehar HPS	990	607	660	645	15.31	638	14.57	0.74
	Pong HPS	396	191	306	108	4.72	197	5.01	-0.29
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1574</b>	<b>2184</b>	<b>1380</b>	<b>39.18</b>	<b>1633</b>	<b>38.20</b>	<b>0.98</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	227	214	4.92	205	4.71	0.21
	KWHEP HPS(IPP)	1000	0	1200	1200	28.57	1190	28.63	-0.06
	Malana Stg-II HPS	100	0	109	108	2.49	104	2.09	0.40
	Shree Cement TPS	300	0	291	278	6.82	284	5.41	1.40
	Budhil HPS(IPP)	70	0	69	69	1.66	69		1.66
	<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1896</b>	<b>1869</b>	<b>44.45</b>	<b>1852</b>	<b>40.84</b>	<b>3.61</b>
<b>H. Total Regional Entities (A-G)</b>	<b>22336</b>	<b>15599</b>	<b>17780</b>	<b>16980</b>	<b>399.22</b>	<b>16634</b>	<b>394.07</b>	<b>5.15</b>	

I. State Entities	Station	Effective Installed Capacity (MW)	Peak MW	Off Peak MW	Energy(MU)	Average(Sent out MW)	
<b>Punjab</b>	Guru Gobind Singh TPS (Ropar)	1260	1033	1044	23.22	967	
	Guru Nanak Dev TPS(Bhatinda)	440	210	210	4.53	189	
	Guru Hargobind Singh TPS(L.mbt)	920	903	886	19.99	833	
	Thermal (Total)	2620	2146	2140	47.74	1989	
	Total Hydro	1148	869	883	20.83	868	
	<b>Total Punjab</b>	<b>3768</b>	<b>3015</b>	<b>3023</b>	<b>68.56</b>	<b>2857</b>	
<b>Haryana</b>	Panipat TPS	1367	929	1083	25.81	1075	
	DCRTPP (Yamuna nagar)	600	0	0	0.00	0	
	Faridabad GPS (NTPC)	432	267	384	8.78	366	
	RGTPP (khedar) (IPP)	1200	309	300	7.27	303	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	1320	0	0	0.00	0	
	Thermal (Total)	4944	1505	1767	41.87	1744	
	Total Hydro	62	16	25	0.86	36	
	<b>Total Haryana</b>	<b>5006</b>	<b>1521</b>	<b>1792</b>	<b>42.73</b>	<b>1780</b>	
	<b>Rajasthan</b>	kota TPS	1240	1052	1045	24.63	1026
		suratgarh TPS	1500	1096	1126	26.36	1098
Chabra TPS		500	308	227	5.95	248	
Dholpur GPS		330	207	143	3.59	150	
Ramgarh GPS		111	64	61	1.61	67	
RAPS A (NPC)		300	192	191	4.32	180	
Barsingar (NLC)		250	113	115	2.70	112	
Giral LTPS		250	39	85	0.80	33	
Rajwest LTPS (IPP)		540	288	122	4.65	194	
VSLP LTPS (IPP)		135	0	0	0.00	0	
Thermal (Total)		5156	3359	3115	74.60	3108	
Total Hydro		550	0	0	0.00	0	
Wind power		1843	235	988	9.11	380	
Biomass		91	29	29	0.70	29	
Solar		128	0	0	0.30	12	
Renewable/Others (Total)		2062	264	1017	10.11	421	
<b>Total Rajasthan</b>		<b>7767</b>	<b>3623</b>	<b>4132</b>	<b>84.71</b>	<b>3530</b>	
<b>UP</b>		Anpara TPS	1630	1116	1017	22.60	942
	Obra TPS	1382	156	385	7.50	313	
	Paricha TPS	890	293	588	8.70	363	
	Panki TPS	210	140	160	3.10	129	
	Harduaganj TPS	665	34	34	0.70	29	
	Tanda TPS (NTPC)	440	298	296	7.20	300	
	Roza TPS (IPP)	1200	824	826	19.63	818	
	Anpara-C (IPP)	1200	0	0	0.00	0	
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	172	153	3.15	131	
	Thermal (Total)	8067	3033	3459	72.57	3024	
	Vishnuparyag HPS (IPP)	400	397	436	10.20	425	
	Other Hydro	527	94	0	2.39	99	
	Cogeneration	981	50	50	1.20	50	
	<b>Total UP</b>	<b>9975</b>	<b>3574</b>	<b>3945</b>	<b>86.36</b>	<b>3173</b>	
	<b>Uttarakhand</b>	Total Hydro	1303	844	855	20.14	839
		<b>Total Uttarakhand</b>	<b>1303</b>	<b>844</b>	<b>855</b>	<b>20.14</b>	<b>839</b>
<b>Delhi</b>	Rajghat TPS	135	45	53	1.32	55	
	Delhi Gas Turbine	282	187	185	4.68	195	
	Pragati Gas Turbine	330	284	285	7.04	293	
	Rithala GPS	108	20	20	0.66	28	
	Bawana GPS	677	274	211	6.35	265	
	Badarpur TPS (NTPC)	705	550	630	12.89	537	
	Thermal (Total)	2237	1360	1384	32.94	1372	
	<b>Total Delhi</b>	<b>2237</b>	<b>1360</b>	<b>1384</b>	<b>32.94</b>	<b>1372</b>	
<b>HP</b>	Baspa HPS (IPP)	330	330	330	7.92	330	
	Malana HPS (IPP)	86	50	107	2.20	92	
	Other Hydro	589	475	514	11.77	490	
	<b>Total HP</b>	<b>1005</b>	<b>855</b>	<b>951</b>	<b>22</b>	<b>912</b>	
<b>J &amp; K</b>	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>15413</b>	<b>16732</b>	<b>372.51</b>	<b>15096</b>	
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>4500</b>	<b>5978</b>	<b>125.27</b>	<b>5219</b>	
<b>Total Regional Availability(Gross)</b>		<b>54353</b>	<b>37693</b>	<b>39690</b>	<b>897.00</b>	<b>36950</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	8192	8086	190.96	7957
State Control Area Hydro	5368	3299	3364	91.49	3387
<b>Total Regional Hydro</b>	<b>15731</b>	<b>11491</b>	<b>11450</b>	<b>282.45</b>	<b>11344</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	500	500	0	11.58	0.00	11.58
Gwalior-Agra (D/C)	699	1013	1030	0	18.56	0.00	18.56
Zerda-Kankroli	263	278	307	0	5.16	0.00	5.16
Zerda-Bhinmal	246	210	384	0	5.98	0.00	5.98
Malanpur-Auraiya	-56	146	0	56	1.42	0.00	1.42
Badod-Kota/Morak	188	154	130	0	3.89	0.00	3.89
Mundra-Mohinderqarh(HVDC)	600	588	605	0	14.55	0.00	14.55
<b>Sub Total WR</b>	<b>2440</b>	<b>2889</b>			<b>61.14</b>	<b>0.00</b>	<b>61.14</b>
Pusaui Bypass	300	300	300	0	7.26	0.00	7.26
MZP- GKP (D/C)	644	1108	1134	0	22.09	0.00	22.09
Patna-Balia(D/C)	422	387	614	0	10.93	0.00	10.93
B'Sharif-Balia (D/C)	374	585	688	0	13.19	0.00	13.19
Barh - Balia(D/C)	257	385	408	0	6.64	0.00	6.64
Pusaui-Balia	-49	46	58	86	0.49	0.00	0.49
Gaya-Fatehpur (765 Kv)	0	148	169	0	1.15	0.00	1.15
Pusaui-Sahupuri	157	155	178	0	3.35	0.00	3.35
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>2060</b>	<b>3089</b>			<b>65.09</b>	<b>0.97</b>	<b>64.13</b>
<b>Total IR Exch</b>	<b>4500</b>	<b>5978</b>			<b>126.23</b>	<b>0.97</b>	<b>125.27</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
24.25	3.72	27.97	-8.74	41.62	1.82	5.55	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
21.05	46.72	67.76	64.13	61.14	125.27	43.08	14.42	57.50

**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	2.10	4.43	33.46	83.36	66.53	16.63	2.99	0.01

<----- Frequency (Hz) ----->				Average Frequency	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX	MIN
Freq	Time	Freq	Time	Hz			(Hz)	(Hz)
50.29	6.07	48.90	19.45	49.59	2.15	0.18	50.01	49.06

**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	6:02	397	2:03	0.0	0.0	0.0	0.0
Gorakhpur	400	429	6:40	393	4:24	0.0	0.0	16.4	0.0
Bareilly	400	416	6:04	389	13:39	0.0	0.0	0.0	0.0
Kanpur	400	414	6:03	394	13:36	0.0	0.0	0.0	0.0
Dadri	400	414	6:02	396	13:37	0.0	0.0	0.0	0.0
Ballabgarh	400	420	6:04	397	13:37	0.0	0.0	0.0	0.0
Bawana	400	419	6:03	399	13:36	0.0	0.0	0.0	0.0
Bassi	400	426	6:58	397	13:56	0.0	0.0	4.1	0.0
Hissar	400	415	6:05	392	13:36	0.0	0.0	0.0	0.0
Moga	400	419	6:05	396	13:36	0.0	0.0	0.0	0.0
Abdullapur	400	419	6:02	400	13:38	0.0	0.0	0.0	0.0
Nalagarh	400	414	6:03	392	13:37	0.0	0.0	0.0	0.0
Kishenpur	400	420	6:06	404	13:34	0.0	0.0	0.0	0.0
Wagoora	400	414	6:07	392	19:37	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	477.39	401.01	496.82	971.87	1173.00	652.93
Pong	426.72	384.05	394.36	116.59	414.27	644.91	798.93	383.21
Tehri	829.79	740.04	771.95	241.00	818.65	982.26	619.39	161.00
Koteshwar	612.50	598.50	600.60	0.63	NA	NA	161.00	132.00
Chamera-I	760.00	748.75	NA	10.00	NA	NA	298.46	234.25
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 27.07.2012 :**

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 :**

1. 400KV CLP(Jhajjar)-Dhanoda Ckt-1 & II have been charged first time at 14.08 hrs and 14.37 hrs respectively.

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

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

Report for : 27.07.2012

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER