

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 20.07.2012

Date of Reporting : 21.07.2012

### 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
35180	5586	40766	49.53	38009	4757	42766	49.63	858.1	121.41

\* 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	52.41	15.99		68.40	121.09	118.33	-2.76	186.73	21.94
Haryana	58.02	1.03		59.06	65.99	67.23	1.24	126.29	18.31
Rajasthan	63.26	0.00	15.98	79.24	37.73	55.27	17.55	134.51	15.95
Delhi	34.83			34.83	78.36	76.14	-2.22	110.97	2.93
UP	72.92	11.55	1.20	85.68	86.44	124.02	37.58	209.70	55.06
Uttarakhand		18.24		18.24	10.52	11.74	1.22	29.98	4.05
HP		20.89		20.89	4.02	3.73	-0.29	24.62	0.21
J & K		15.28	0.00	15.28	13.18	14.04	0.86	29.32	2.95
Chandigarh				0.00	6.86	5.97	-0.89	5.97	0.00
<b>Total</b>	<b>281.45</b>	<b>82.99</b>	<b>17.18</b>	<b>381.61</b>	<b>424.18</b>	<b>476.48</b>	<b>52.30</b>	<b>858.08</b>	<b>121.41</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	8065	1336	-3	2174	7947	1611	-183	2092	51.68	
Haryana	5232	848	92	703	5685	949	195	703	16.88	
Rajasthan	4815	1230	414	-653	6358	270	1138	-677	-16.00	
Delhi	4833	8	-40	802	4607	27	85	792	18.70	
UP	8363	1835	1361	67	9880	1800	2227	167	1.78	
Uttarakhand	1303	180	100	-100	1391	0	205	-100	-2.40	
HP	889	0	-98	-1314	946	0	-51	-1315	-31.21	
J&K	1419	150	229	-424	947	100	-239	-424	-10.42	
Chandigarh	261	0	-32	40	247	0	-3	0	1.07	
<b>Total</b>	<b>35180</b>	<b>5586</b>	<b>2022</b>	<b>1295</b>	<b>38009</b>	<b>4757</b>	<b>3375</b>	<b>1238</b>	<b>30.07</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	1245	1152	1556	29.95	1248	29.88	0.07
Rihand I STPS	1000	673	639	941	15.93	664	16.14	-0.21
Rihand II STPS	1000	955	1007	1040	23.13	964	22.92	0.21
Rihand III STPS	500		0	0	0.00	0		0.00
Dadri I STPS	840	630	849	633	15.92	664	15.13	0.80
Dadri II STPS	980	758	979	706	18.36	765	18.18	0.18
Unchahar I TPS	420	365	361	430	8.88	370	8.77	0.11
Unchahar II TPS	420	364	354	441	8.82	367	8.74	0.07
Unchahar III TPS	210	184	179	220	4.45	185	4.42	0.03
ISTPP (Jhajjar)	1000	850	787	878	20.59	858	19.59	1.01
Dadri GPS	830	745	754	675	16.49	687	16.02	0.47
Anta GPS	419	389	389	392	9.13	381	8.19	0.94
Auraiya GPS	663	386	300	296	7.00	292	7.21	-0.21
<b>Sub Total (A)</b>	<b>10282</b>	<b>7545</b>	<b>7750</b>	<b>8208</b>	<b>178.66</b>	<b>7444</b>	<b>175.18</b>	<b>3.48</b>
<b>B. NPC</b>								
NAPS	440	255	296	290	6.13	255	6.12	0.01
RAPS- B	440	194	219	221	4.74	197	4.66	0.08
RAPS- C	440	200	205	230	4.73	197	4.80	-0.07
<b>Sub Total (B)</b>	<b>1320</b>	<b>649</b>	<b>720</b>	<b>741</b>	<b>15.60</b>	<b>650</b>	<b>15.58</b>	<b>0.02</b>
<b>C. NHPC</b>								
Chamera I HPS	540	534	540	540	12.86	536	12.81	0.05
Chamera II HPS	300	300	302	304	7.22	301	7.21	0.01
Chamera III HPS	231	231	79	77	5.35	223	5.54	-0.19
Bairasuil HPS	180	182	80	140	2.42	101	2.38	0.04
Salal-HPS	690	663	658	660	15.78	657	15.84	-0.07
Tanakpur-HPS	94	66	68	94	1.69	70	1.61	0.08
Uri-HPS	480	467	480	480	11.63	485	11.60	0.03
Dhauliganga-HPS	280	277	283	282	6.80	283	6.72	0.08
Dulhasi-HPS	390	387	404	401	9.38	391	9.26	0.12
Sewa-II HPS	120	80	76	40	0.66	28	0.57	0.09
<b>Sub Total (C)</b>	<b>3305</b>	<b>3186</b>	<b>2970</b>	<b>3018</b>	<b>73.77</b>	<b>3074</b>	<b>73.54</b>	<b>0.23</b>
<b>D.NJPC</b>								
Nathpa Jhakri	1500	1605	1610	1612	38.69	1612	38.52	0.17
<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>1610</b>	<b>1612</b>	<b>38.69</b>	<b>1612</b>	<b>38.52</b>	<b>0.17</b>
<b>E. THDC</b>								
Tehri HPS	1000	460	329	335	5.24	218	5.00	0.24
Koteshwar HPS	400	230	169	221	1.97	82	2.20	-0.24
<b>Sub Total (E)</b>	<b>1400</b>	<b>690</b>	<b>498</b>	<b>556</b>	<b>7.21</b>	<b>300</b>	<b>7.20</b>	<b>0.00</b>
<b>F. BBMB</b>								
Bhakra HPS	1480	747	1192	525	18.78	783	17.93	0.85
Dehar HPS	990	614	825	660	15.06	628	14.74	0.32
Pong HPS	396	240	300	162	5.90	246	5.01	0.89
<b>Sub Total (F)</b>	<b>2866</b>	<b>1601</b>	<b>2317</b>	<b>1347</b>	<b>39.74</b>	<b>1656</b>	<b>37.67</b>	<b>2.07</b>
<b>G. IPP(s)/JV(s)</b>								
ADHPL HPS(IPP)	192	0	178	199	4.17	174	3.56	0.61
KWHPEP HPS(IPP)	1000	0	1200	1200	28.59	1191	28.28	0.32
Malana Stg-II HPS	100	93	102	108	2.48	103	2.23	0.25
Shree Cement TPS	300	0	145	140	3.50	146	3.17	0.33
Budhil HPS(IPP)	70		35	35	0.84	35		0.84
<b>Sub Total (G)</b>	<b>1662</b>	<b>93</b>	<b>1660</b>	<b>1682</b>	<b>39.58</b>	<b>1649</b>	<b>37.24</b>	<b>2.34</b>
<b>H. Total Regional Entities (A-G)</b>	<b>22336</b>	<b>15369</b>	<b>17525</b>	<b>17164</b>	<b>393.24</b>	<b>16385</b>	<b>384.92</b>	<b>8.32</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	1250	1239	27.79	1158	
	Guru Nanak Dev TPS(Bhatinda)	440	209	210	4.44	185	
	Guru Hargobind Singh TPS(L.mbt)	920	947	907	20.17	841	
	Thermal (Total)	2620	2406	2356	52.41	2184	
	Total Hydro	1148	758	758	15.99	666	
	<b>Total Punjab</b>	<b>3768</b>	<b>3164</b>	<b>3114</b>	<b>68.40</b>	<b>2850</b>	
Haryana	Panipat TPS	1367	1133	1111	27.31	1138	
	DCRTPP (Yamuna nagar)	600	0	0	0.00	0	
	Faridabad GPS (NTPC)	432	373	375	8.86	369	
	RGTPP (khedar) (IPP)	1200	551	546	13.55	565	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	1320	358	286	8.30	346	
	Thermal (Total)	4944	2415	2318	58.02	2418	
	Total Hydro	62	31	28	1.03	43	
	<b>Total Haryana</b>	<b>5006</b>	<b>2446</b>	<b>2346</b>	<b>59.06</b>	<b>2461</b>	
	Rajasthan	kota TPS	1240	856	852	20.17	841
suratgarh TPS		1500	823	882	20.77	866	
Chabra TPS		500	243	214	5.05	211	
Dholpur GPS		330	165	55	2.57	107	
Ramgarh GPS		111	55	55	1.33	55	
RAPS A (NPC)		300	170	170	4.30	179	
Barsingsar (NLC)		250	116	115	2.62	109	
Giral LTPS		250	76	65	1.36	57	
Rajwest LTPS (IPP)		540	243	243	5.09	212	
VSPL LTPS (IPP)		135	0	0	0.00	0	
Thermal (Total)		5156	2747	2651	63.26	2636	
Total Hydro		550	0	0	0.00	0	
Wind power		1843	368	1134	14.87	619	
Biomass		91	39	39	0.93	39	
Solar		128	0	0	0.18	8	
Renewable/Others (Total)		2062	407	1173	15.98	666	
<b>Total Rajasthan</b>		<b>7767</b>	<b>3154</b>	<b>3824</b>	<b>79.24</b>	<b>3302</b>	
UP		Anpara TPS	1630	958	880	19.40	808
		Obra TPS	1382	472	494	10.40	433
	Paricha TPS	890	424	473	10.00	417	
	Panki TPS	210	80	85	2.00	83	
	Harduaganj TPS	665	34	36	0.60	25	
	Tanda TPS (NTPC)	440	293	291	7.22	301	
	Roza TPS (IPP)	1200	554	549	13.10	546	
	Anpara-C (IPP)	1200	219	275	5.54	231	
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	204	209	4.67	194	
	Thermal (Total)	8067	3238	3292	72.92	3038	
	Vishnuparyag HPS (IPP)	400	436	436	10.35	431	
	Other Hydro	527	186	0	1.20	50	
	Cogeneration	981	50	50	1.20	50	
	<b>Total UP</b>	<b>9975</b>	<b>3910</b>	<b>3778</b>	<b>85.68</b>	<b>3138</b>	
	Uttarakhand	Total Hydro	1303	775	673	18.24	760
		<b>Total Uttarakhand</b>	<b>1303</b>	<b>775</b>	<b>673</b>	<b>18.24</b>	<b>760</b>
Delhi	Rajghat TPS	135	48	49	1.08	45	
	Delhi Gas Turbine	282	219	215	5.19	216	
	Pragati Gas Turbine	330	282	276	6.43	268	
	Rithala GPS	108	0	21	0.27	11	
	Bawana GPS	677	346	170	8.72	363	
	Badarpur TPS (NTPC)	705	537	516	13.14	548	
	Thermal (Total)	2237	1432	1247	34.83	1451	
	<b>Total Delhi</b>	<b>2237</b>	<b>1432</b>	<b>1247</b>	<b>34.83</b>	<b>1451</b>	
HP	Baspa HPS (IPP)	330	330	330	7.92	330	
	Malana HPS (IPP)	86	90	90	2.30	96	
	Other Hydro	589	445	431	10.67	445	
	<b>Total HP</b>	<b>1005</b>	<b>865</b>	<b>851</b>	<b>21</b>	<b>870</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>16408</b>	<b>16518</b>	<b>381.61</b>	<b>15469</b>	
<b>J. Net Inter Regional Exchange (Import (+ve)/Export (-ve))</b>			<b>3090</b>	<b>5673</b>	<b>109.02</b>	<b>4543</b>	
<b>Total Regional Availability(Gross)</b>		<b>54353</b>	<b>37023</b>	<b>39355</b>	<b>883.87</b>	<b>36397</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	8875	8040	194.65	8110
State Control Area Hydro	5368	3277	2995	82.99	3026
<b>Total Regional Hydro</b>	<b>15731</b>	<b>12152</b>	<b>11035</b>	<b>277.63</b>	<b>11137</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	Import	Export	
Vindhychal B/B	100	400	400	0	6.93	0.00	6.93	6.93	
Gwalior-Agra (D/C)	508	1280	1425	0	23.10	0.00	23.10	23.10	
Zerda-Kankroli	48	308	358	23	3.97	0.00	3.97	3.97	
Zerda-Bhinmal	0	307	405	0	2.58	0.00	2.58	2.58	
Malanpur-Auraiya	-20	-34	0	34	0.00	0.08	-0.08	-0.08	
Badod-Kota/Morak	0	0	0	0	0.00	0.00	0.00	0.00	
Mundra-Mohindergarh(HVDC)	574	500	574	0	13.44	0.00	13.44	13.44	
<b>Sub Total WR</b>	<b>1210</b>	<b>2761</b>			<b>50.02</b>	<b>0.08</b>	<b>49.94</b>		
Pusauli Bypass	250	250	250	0	5.98	0.00	5.98	5.98	
MZP- GKP (D/C)	642	1024	1084	0	21.19	0.00	21.19	21.19	
Patna-Balia(D/C)	490	714	742	0	14.55	0.00	14.55	14.55	
B'Sharif-Balia (D/C)	267	502	524	0	10.51	0.00	10.51	10.51	
Barh - Balia(D/C)	0	0	0	0	0.00	0.00	0.00	0.00	
Pusauli-Balia	52	30	56	0	0.28	0.00	0.28	0.28	
Gayaa-Fatehpur (765 Kv)	73	300	326	0	4.89	0.00	4.89	4.89	
Pusauli-Sahupuri	151	117	171	0	2.65	0.00	2.65	2.65	
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00	0.00	
Son Ngr-Rihand	-45	-25	0	48	0.00	0.97	-0.97	-0.97	
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00	0.00	
<b>Sub Total ER</b>	<b>1880</b>	<b>2912</b>			<b>60.05</b>	<b>0.97</b>	<b>59.09</b>		
<b>Total IR Exch</b>	<b>3090</b>	<b>5673</b>			<b>110.07</b>	<b>1.05</b>	<b>109.02</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
18.07	3.72	21.79	-2.34	39.61	2.13	2.14	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
21.57	37.71	59.29	59.09	49.94	109.02	37.51	12.22	49.74

**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	11.10	24.10	65.90	92.50	34.10	7.50	0.00	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				
50.00	8.05	48.80	19.09	49.37	4.65	0.26	49.91	48.99

**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	410	19:58	398	01:01	0.0	0.0	0.0	0.0
Gorakhpur	400	428	07:50	398	02:49	0.0	0.0	28.9	0.0
Bareilly	400	417	19:13	393	13:38	0.0	0.0	0.0	0.0
Kanpur	400	417	20:00	404	09:47	0.0	0.0	0.0	0.0
Dadri	400	416	18:33	396	01:11	0.0	0.0	0.0	0.0
Ballabgarh	400	419	18:33	399	01:11	0.0	0.0	0.0	0.0
Bawana	400	418	18:34	401	00:53	0.0	0.0	0.0	0.0
Bassi	400	419	19:00	399	14:00	48.2	48.2	3.0	0.0
Hissar	400	416	18:33	392	04:14	0.0	0.0	0.0	0.0
Moga	400	419	22:00	396	04:18	0.0	0.0	0.0	0.0
Abdullapur	400	418	18:34	404	01:04	0.0	0.0	0.0	0.0
Nalagarh	400	407	10:58	400	09:46	0.0	0.0	0.0	0.0
Kishenpur	400	412	07:51	401	10:25	0.0	0.0	0.0	0.0
Wagoora	400	407	01:34	390	22:14	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	474.03	334.98	492.42	817.99	982.11	680.76
Pong	426.72	384.05	392.85	93.10	412.57	588.94	266.21	489.12
Tehri	829.79	740.04	763.80	154.42	818.65	982.26	371.19	159.00
Koteshwar	612.50	598.50	600.10	0.63	NA	NA	159.00	146.00
Chamera-I	760.00	748.75	751.12	11.42	NA	NA	328.51	348.74
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 20.07.2012 :**

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 : 20.07.2012

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER