

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पब्लिसिटी की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 21.07.2013  
Date of Reporting : 22.07.2013

### 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
38353	1890	40243	50.20	35402	340	35742	50.08	872.4	24.88

\* 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)	UI [OD:(+ve), UD:(-ve)]	
	Thermal	Hydro	Renewable/others \$	Total				Consumption (Net MU)	Shortages * (MU)
Punjab	47.96	15.46		63.42	117.75	118.22	0.47	181.64	0.00
Haryana	44.43	0.40		44.83	108.25	108.09	-0.15	152.93	0.00
Rajasthan	81.43	0.00	8.40	89.83	49.03	43.01	-6.02	132.84	0.00
Delhi	18.85			18.85	66.85	63.84	-3.01	82.69	0.03
UP	111.47	4.30	1.20	116.97	121.11	119.36	-1.76	236.32	23.15
Uttarakhand		16.63		16.63	16.20	14.42	-1.79	31.04	0.00
HP		24.04		24.04	2.43	-2.16	-4.59	21.88	0.00
J & K		13.91	0.00	13.91	17.87	14.23	-3.64	28.14	1.70
Chandigarh				0.00	5.79	4.88	-0.92	4.88	0.00
<b>Total</b>	<b>304.13</b>	<b>74.74</b>	<b>9.60</b>	<b>388.47</b>	<b>505.29</b>	<b>483.90</b>	<b>-21.40</b>	<b>872.36</b>	<b>24.88</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	
Punjab	8441	0	124	1923	6826	0	-207	1923	46.16	
Haryana	6919	0	-137	1227	6263	0	32	1474	31.05	
Rajasthan	5514	0	-308	-135	5610	0	-282	-67	-2.51	
Delhi	3865	0	199	245	3050	0	-275	-67	4.11	
UP	9830	1790	-255	908	10350	340	-122	1457	18.89	
Uttarakhand	1433	0	-8	241	1294	0	-56	132	3.54	
HP	783	0	-266	-1101	846	0	-45	-1201	-23.97	
J&K	1332	100	-269	-136	976	0	-361	-235	-7.77	
Chandigarh	235	0	-14	0	188	0	-53	0	0.00	
<b>Total</b>	<b>38353</b>	<b>1890</b>	<b>-934</b>	<b>3172</b>	<b>35402</b>	<b>340</b>	<b>-1369</b>	<b>3417</b>	<b>69.49</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)	UI [OG:(+ve), UG:(-ve)]	
								Schedule Net MU	UI Net MU
A. NTPC	Singrauli STPS	2000	1735	1677	1584	36.53	1522	36.53	0.00
	Rihand I STPS	1000	920	871	6	16.31	680	16.95	-0.64
	Rihand II STPS	1000	970	838	717	16.27	678	16.95	-0.69
	Rihand III STPS	500	485	464	365	8.65	360	8.92	-0.27
	Dadri I STPS	840	810	684	647	13.59	566	13.87	-0.27
	Dadri II STPS	980	831	700	718	13.97	582	14.80	-0.83
	Unchahar I TPS	420	399	335	316	7.11	296	7.28	-0.17
	Unchahar II TPS	420	403	312	308	6.87	286	7.04	-0.17
	Unchahar III TPS	210	201	154	153	3.34	139	3.40	-0.06
	ISTPP (Jhajihar)	1500	1403	640	605	13.08	545	13.81	-0.73
	Dadri GPS	830	786	380	389	8.94	373	9.46	-0.51
	Anta GPS	419	397	372	399	9.24	385	9.54	-0.30
	Auraiya GPS	663	610	306	311	7.15	298	7.18	-0.03
	<b>Sub Total (A)</b>	<b>10782</b>	<b>9949</b>	<b>7733</b>	<b>6518</b>	<b>161.05</b>	<b>6711</b>	<b>165.73</b>	<b>-4.67</b>
	B. NPC	NAPS	440	157	176	180	3.77	157	3.77
RAPS- B		440	391	436	437	9.46	394	9.38	0.08
RAPS- C		440	210	234	235	4.94	206	5.04	-0.11
<b>Sub Total (B)</b>		<b>1320</b>	<b>758</b>	<b>846</b>	<b>852</b>	<b>18.17</b>	<b>757</b>	<b>18.19</b>	<b>-0.02</b>
C. NHPC	Chamera I HPS	540	534	540	540	12.64	527	12.82	-0.17
	Chamera II HPS	300	300	305	306	7.27	303	7.26	0.01
	Chamera III HPS	231	231	231	233	5.45	227	5.39	0.06
	Bairasuil HPS	180	127	110	90	1.41	59	1.56	-0.16
	Salal-HPS	690	637	667	550	14.85	619	15.27	-0.41
	Tanakpur-HPS	94	87	83	86	2.04	85	2.10	-0.06
	Uri-HPS	480	328	384	281	7.48	312	7.79	-0.32
	Dhauliganga-HPS	280	0	0	0	0.00	0	0.00	0.00
	Dulhasti-HPS	390	387	383	405	9.29	387	9.39	-0.10
	Sewa-II HPS	120	119	121	118	2.72	113	2.74	-0.02
<b>Sub Total (C)</b>	<b>3305</b>	<b>2750</b>	<b>2824</b>	<b>2609</b>	<b>63.15</b>	<b>2631</b>	<b>64.32</b>	<b>-1.16</b>	
D. NJPC	Natpaa Jhakri	1500	1605	1620	1621	38.62	1609	38.52	0.10
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>1620</b>	<b>1621</b>	<b>38.62</b>	<b>1609</b>	<b>38.52</b>	<b>0.10</b>
E. THDC	Tehri HPS	1000	790	984	736	18.79	783	18.90	-0.11
	<b>Sub Total (E)</b>	<b>1400</b>	<b>1062</b>	<b>1358</b>	<b>928</b>	<b>24.71</b>	<b>1030</b>	<b>24.90</b>	<b>-0.19</b>
F. BBMB	Bhakra HPS	1480	1347	1359	1361	32.90	1371	32.33	0.57
	Dehar HPS	990	604	825	620	14.98	624	14.49	0.49
	Pong HPS	396	219	372	132	5.50	229	5.26	0.24
	<b>Sub Total (F)</b>	<b>2866</b>	<b>2170</b>	<b>2556</b>	<b>2113</b>	<b>53.38</b>	<b>2224</b>	<b>52.08</b>	<b>1.30</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	193	230	4.69	196	5.28	-0.59
	KWHEP HPS(IPP)	1000	0	1183	1202	28.12	1172	28.51	-0.39
	Malana Stg-II HPS	100	0	112	113	2.69	112	2.52	0.17
	Shree Cement TPS	300	0	172	201	4.05	169	4.09	-0.05
	Budhil HPS(IPP)	70	0	0	34	0.23	10	0.95	-0.72
<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1660</b>	<b>1780</b>	<b>39.79</b>	<b>1658</b>	<b>41.36</b>	<b>-1.58</b>	
<b>H. Total Regional Entities (A-G)</b>	<b>22836</b>	<b>18294</b>	<b>18597</b>	<b>16421</b>	<b>398.87</b>	<b>16620</b>	<b>405.09</b>	<b>-6.22</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	1240	1060	24.94	1039	
	Guru Nanak Dev TPS(Bhatinda)	440	185	181	4.12	172	
	Guru Hargobind Singh TPS(L.mbt)	920	925	656	18.90	787	
	Goindwal(GVK)		0	0	0.00	0	
	Thermal (Total)	2620	2350	1897	47.96	1998	
	Total Hydro	1148	723	636	15.46	644	
	<b>Total Punjab</b>	<b>3768</b>	<b>3073</b>	<b>2533</b>	<b>63.42</b>	<b>2642</b>	
Haryana	Panipat TPS	1367	609	578	13.06	544	
	DCRTPP (Yamuna nagar)	600	0	0	0.00	0	
	Faridabad GPS (NTPC)	432	171	163	4.10	171	
	RGTPP (khedar) (IPP)	1200	460	336	9.11	380	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	1320	828	744	18.17	757	
	Thermal (Total)	4944	2068	1821	44.43	1851	
	Total Hydro	62	29	0	0.40	17	
		<b>Total Haryana</b>	<b>5006</b>	<b>2097</b>	<b>1821</b>	<b>44.83</b>	<b>1868</b>
	Rajasthan	kota TPS	1240	770	804	19.06	794
suratgarh TPS		1500	968	939	22.60	942	
Chabra TPS		500	191	185	4.50	187	
Dholpur GPS		330	117	114	2.77	115	
Ramgarh GPS		111	84	80	2.10	88	
RAPS A (NPC)		300	176	176	4.31	180	
Barsingar (NLC)		250	149	147	3.41	142	
Giral LTPS		250	80	62	1.69	70	
Rajwest LTPS (IPP)		1080	383	468	9.59	400	
VSLP LTPS (IPP)		135	0	0	0.00	0	
Kalisindh Thermal		600	0	0	0.00	0	
Kawai(Adani)		660	454	483	11.41	475	
Thermal (Total)		6956	3372	3458	81.43	3393	
Total Hydro		550	0	0	0.00	0	
Wind power		2191	349	343	6.45	269	
Biomass		91	31	31	0.75	31	
Solar		201	0	0	1.21	50	
Renewable/Others (Total)		2483	380	374	8.40	350	
		<b>Total Rajasthan</b>	<b>9989</b>	<b>3752</b>	<b>3832</b>	<b>89.83</b>	<b>3743</b>
UP		Anpara TPS	1630	1205	993	26.80	1117
	Obra TPS	1288	430	457	10.90	454	
	Paricha TPS	1140	661	607	13.20	550	
	Panki TPS	210	131	131	3.00	125	
	Harduaganj TPS	665	337	214	5.80	242	
	Tanda TPS (NTPC)	440	289	293	7.30	304	
	Roza TPS (IPP)	1200	816	815	20.12	838	
	Anpara-C (IPP)	1200	699	747	17.62	734	
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	269	283	6.73	280	
	Thermal (Total)	8223	4837	4540	111.47	4644	
	Vishnuparyag HPS (IPP)	400	0	0	0.00	0	
	Other Hydro	527	193	196	4.30	179	
	Cogeneration	981	50	50	1.20	50	
		<b>Total UP</b>	<b>10131</b>	<b>5080</b>	<b>4786</b>	<b>116.97</b>	<b>4874</b>
	Uttarakhand	Total Hydro	1303	613	691	16.63	693
<b>Total Uttarakhand</b>		<b>1303</b>	<b>613</b>	<b>691</b>	<b>16.63</b>	<b>693</b>	
Delhi	Rajghat TPS	135	0	29	0.03	1	
	Delhi Gas Turbine	282	71	70	1.65	69	
	Pragati Gas Turbine	330	283	263	6.50	271	
	Rithala GPS	95	0	0	0.00	0	
	Bawana GPS	686	0	0	0.00	0	
	Badarpur TPS (NTPC)	705	505	485	10.66	444	
	Thermal (Total)	2232	859	847	18.85	785	
	<b>Total Delhi</b>	<b>2232</b>	<b>859</b>	<b>847</b>	<b>18.85</b>	<b>785</b>	
HP	Baspa HPS (IPP)	330	308	308	7.38	308	
	Malana HPS (IPP)	86	104	106	2.49	104	
	Other Hydro	589	618	600	14.16	590	
	<b>Total HP</b>	<b>1005</b>	<b>1030</b>	<b>1014</b>	<b>24.04</b>	<b>1002</b>	
J & K	Baglihar HPS (IPP)	450	436	440	10.57	440	
	Other Hydro	323	140	139	3.34	139	
	Gas/Diesel/Others	183	0	0	0.00	0	
	<b>Total J &amp; K</b>	<b>956</b>	<b>576</b>	<b>579</b>	<b>13.91</b>	<b>580</b>	
<b>Total State Control Area Generation</b>		<b>34390</b>	<b>17080</b>	<b>16103</b>	<b>388.47</b>	<b>16186</b>	
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>3878</b>	<b>3260</b>	<b>85.41</b>	<b>3559</b>	
<b>Total Regional Availability(Gross)</b>		<b>57226</b>	<b>39555</b>	<b>35784</b>	<b>872.75</b>	<b>36364</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	9846	8816	215.37	8974
State Control Area Hydro	5368	3164	3116	74.74	3114
<b>Total Regional Hydro</b>	<b>15731</b>	<b>13010</b>	<b>11932</b>	<b>290.11</b>	<b>12088</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	100	100	500	100	3.18	0.40	2.78
Gwalior-Agra (D/C)	1332	1363	1709	0	27.06	0.00	27.06
Zerda-Kankroli	-56	-271	1	335	0.00	4.14	-4.14
Zerda-Bhinmal	-32	-212	39	260	0.00	2.75	-2.75
Malanpur-Auraiya	-48	-58	0	106	0.00	1.37	-1.37
Badod-Kota/Morak	-27	-116	18	154	0.00	1.52	-1.52
Mundra-Mohindergarh(HVDC)	1451	1051	1451	0	30.15	0.00	30.15
<b>Sub Total WR</b>	<b>2720</b>	<b>1857</b>			<b>60.39</b>	<b>10.18</b>	<b>50.21</b>
Pusauli Bypass	-300	-206	0	300	0.00	5.51	-5.51
MZP- GKP (D/C)	556	648	820	0	15.98	0.00	15.98
Patna-Balia(D/C)	368	391	645	0	9.93	0.00	9.93
B'Sharif-Balia (D/C)	199	259	458	0	6.34	0.00	6.34
Pusauli-Balia	-24	-7	70	29	0.00	0.20	-0.20
Gaya-Fatehpur (765 Kv)	21	9	125	0	0.82	0.00	0.82
Pusauli-Sahupuri	145	200	200	0	3.89	0.00	3.89
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-38	-40	0	45	0.00	0.90	-0.90
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	231	149	285	0	4.84	0.00	4.84
<b>Sub Total ER</b>	<b>1158</b>	<b>1403</b>			<b>41.80</b>	<b>6.60</b>	<b>35.20</b>
<b>Total IR Exch</b>	<b>3878</b>	<b>3260</b>			<b>102.19</b>	<b>16.78</b>	<b>85.41</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
32.65	3.75	36.40	7.83	41.46	0.05	-15.95	2.49	-2.49

  

Total IR Schedule (MU)			Total IR Actual (MU)			Net IR UI (MU)		
Through ER	Through WR Inclds Mndra	Total	Through ER	Through WR	Total	Through ER	Through WR	Total
46.78	70.16	116.95	35.20	50.21	85.41	-11.59	-19.95	-31.54

**VI. Frequency Profile** <----- % of Time Frequency ----->

<48.80	<49.0	<49.20	<49.50	<49.7	49.5 - 50.2	49.7-49.8	49.7 - 50.2	> 50.00	> 50.2
0.00	0.00	0.00	0.00	0.00	62.78	0.50	62.78	99.06	37.22

Frequency (Hz)				Average Frequency Hz	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX (Hz)	MIN (Hz)
Freq	Time	Freq	Time					
50.53	16.06	49.82	3.13	50.18	0.46	0.12	50.50	50.03

**VII. Voltage profile 400 kV**

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	415	06:11	401	22:23	0.0	0.0	0.0	0.0
Gorakhpur	400	419	06:16	400	22:52	0.0	0.0	0.0	0.0
Bareilly	400	421	06:09	400	13:52	0.0	0.0	0.0	0.0
Kanpur	400	422	06:06	404	22:27	0.0	0.0	3.3	0.0
Dadri	400	414	08:00:00	398	23:00	0.0	0.0	0.0	0.0
Ballabgarh	400	426	06:05	407	22:13	0.0	0.0	42.9	0.0
Bawana	400	420	06:07	402	22:27	0.0	0.0	0.0	0.0
Bassi	400	427	04:00	414	22:12	0.0	0.0	58.9	0.0
Hissar	400	411	04:00	394	14:42	0.0	0.0	0.0	0.0
Moga	400	414	04:00	399	14:42	0.0	0.0	0.0	0.0
Abdullapur	400	412	01:38	398	14:42	0.0	0.0	0.0	0.0
Nalagarh	400	417	03:48	404	14:38	0.0	0.0	0.0	0.0
Kishenpur	400	419	06:04	408	11:16	0.0	0.0	0.0	0.0
Wagoora	400	419	06:04	376	13:23	0.0	0.0	0.0	0.0

**VIII. Voltage profile 765 kV**

Station	Voltage Level (kV)	Maximum		Minimum		Voltage (in % of Time)			
		Voltage(KV)	Time	Voltage (KV)	Time	<728 kV	<742 kV	>800 kV	>820 kV
Fatehpur	765	780	06:06	742	22:14	0.0	0.0	0.0	0.0
Balia	765	759	16:45	716	22:36	3.3	58.3	0.0	0.0
Moga	765	779	04:03	751	14:42	0.0	0.0	0.0	0.0
Agra	765	809	06:06	775	13:50	0.0	0.0	7.2	0.0
Bhiwani	765	789	06:07	758	22:39	0.0	0.0	0.0	0.0
Unnao	765	762	06:25	747	00:00	0.0	0.0	0.0	0.0

**IX. 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	500.26	1101.35	474.38	340.29	1519.23	1038.46
Pong	426.72	384.05	412.27	577.87	392.62	88.85	1315.74	342.38
Tehri	829.79	740.04	800.00	627.35	818.65	982.26	810.53	459.00
Koteshwar	612.50	598.50	608.30	3.80	NA	NA	459.00	393.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	331.88	341.56
Rihand	288.22	252.98	254.66	63.10	253.96	42.40	NA	NA
RPS	352.80	343.81	349.95	NA	NA	NA	NA	NA
Jawahar Sagar	298.70	295.78	297.15	NA	NA	NA	NA	NA
RSD	527.91	487.91	511.76	150.00	501.68	144.00	363.13	343.03

\* NA: Not Available

**X. System Constraints:**

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

**XII. Weather Conditions For 21.07.2013 :**

1.NORMAL WEATHER..

**XIII. Synchronisation of new generating units :**

**XIV. Synchronisation of new 220 / 400 / 765 KV lines and energising of bus / /substation :**

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

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

1. Dhauliganga (280 MW) closed down till 30.09.2013 due to flooding of power house.
2. Vishnuprayg( UPPCL) ( 400 MW ) Closed due to High Silt level in river water.
3. MANERI BHALI STG-1(90MW)/Uttarakhand closed down due to flush flooding.

Report for : 21.07.2013

पारी प्रभाती अभियंता / SHIFT CHARGE ENGINEER