

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 08.07.2013  
Date of Reporting : 09.07.2013

### 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
37768	1595	39363	50.04	38109	1330	39439	50.31	894.0	47.55

\* 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:

UI [OD:(+ve), UD:(-ve)]

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	46.94	18.32		65.26	111.13	110.50	-0.63	175.76	12.75
Haryana	65.97	0.55		66.52	103.30	98.23	-5.07	164.75	0.00
Rajasthan	72.77	0.00	24.74	97.51	48.39	40.55	-7.84	138.06	0.00
Delhi	28.64			28.64	76.00	73.10	-2.89	101.75	0.00
UP	107.96	3.40	3.00	114.36	116.13	113.82	-2.31	228.18	30.83
Uttarakhand		10.87		10.87	20.23	20.36	0.12	31.23	2.23
HP		22.84		22.84	0.96	0.41	-0.55	23.25	0.04
J & K		13.77	0.00	13.77	16.07	12.10	-3.97	25.87	1.70
Chandigarh				0.00	5.79	5.19	-0.60	5.19	0.00
<b>Total</b>	<b>322.28</b>	<b>69.75</b>	<b>27.74</b>	<b>419.76</b>	<b>498.00</b>	<b>474.26</b>	<b>-23.74</b>	<b>894.03</b>	<b>47.55</b>

\* Shortage furnished by the respective constituent.\$ Others include UP Co-generation and JK Diesel

### II. B. State's Demand Met in MWs:

UI/OA/PX IOD/Import: (+ve), UD/Export: (-ve)

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	7736	400	-23	1748	8144	550	37	1805	42.76
Haryana	7130	0	-454	1737	6853	0	-72	1046	30.22
Rajasthan	5432	0	-181	-248	5649	0	-149	-87	-2.69
Delhi	4313	0	-8	40	3916	0	-165	-176	0.91
UP	9147	940	-116	433	10510	780	175	1437	17.03
Uttarakhand	1484	155	234	389	1171	0	-48	334	8.56
HP	900	0	-102	-1197	805	0	16	-1234	-25.60
J&K	1394	100	56	-248	865	0	-277	-349	-6.45
Chandigarh	232	0	-26	0	196	0	-31	0	0.13
<b>Total</b>	<b>37768</b>	<b>1595</b>	<b>-620</b>	<b>2656</b>	<b>38109</b>	<b>1330</b>	<b>-514</b>	<b>2777</b>	<b>64.88</b>

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

### III. Regional Entities :

UI [OG:(+ve), UG:(-ve)]

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
A. NTPC	Singrauli STPS	2000	1935	2060	2045	44.01	1834	44.31	-0.30
	Rihand I STPS	1000	489	450	350	9.35	390	9.86	-0.51
	Rihand II STPS	1000	960	852	843	18.13	755	19.09	-0.96
	Rihand III STPS	500	480	514	376	9.03	376	9.56	-0.53
	Dadri I STPS	840	810	663	620	14.83	618	15.12	-0.29
	Dadri II STPS	980	968	944	709	18.41	767	19.39	-0.98
	Unchahar I TPS	420	397	356	350	7.42	309	7.82	-0.40
	Unchahar II TPS	420	401	307	328	6.81	284	7.32	-0.51
	Unchahar III TPS	210	200	154	160	3.45	144	3.66	-0.21
	ISTPP (Jhajhar)	1500	1410	688	667	14.52	605	15.31	-0.79
	Dadri GPS	830	792	386	397	9.13	380	9.76	-0.64
	Anta GPS	419	400	300	263	6.54	273	6.82	-0.27
	Auraiya GPS	663	608	303	312	7.22	301	7.19	0.02
	<b>Sub Total (A)</b>	<b>10782</b>	<b>9849</b>	<b>7977</b>	<b>7420</b>	<b>168.83</b>	<b>7035</b>	<b>175.20</b>	<b>-6.37</b>
B. NPC	NAPS	440	158	175	179	3.71	154	3.79	-0.09
	RAPS- B	440	380	424	428	9.20	384	9.12	0.08
	RAPS- C	440	210	233	234	4.98	207	5.04	-0.06
	<b>Sub Total (B)</b>	<b>1320</b>	<b>748</b>	<b>832</b>	<b>841</b>	<b>17.89</b>	<b>745</b>	<b>17.95</b>	<b>-0.06</b>
C. NHPC	Chamera I HPS	540	540	540	540	13.00	542	12.96	0.04
	Chamera II HPS	300	306	302	308	7.24	302	7.30	-0.06
	Chamera III HPS	231	231	233	232	5.52	230	5.53	-0.01
	Bairasul HPS	180	179	180	179	2.13	89	2.22	-0.10
	Salal-HPS	690	633	559	659	15.14	631	15.22	-0.07
	Tanakpur-HPS	94	59	52	70	1.22	51	1.34	-0.12
	Uri-HPS	480	457	443	448	10.60	442	10.85	-0.25
	Dhauliganga-HPS	280	0	0	0	0.00	0	0.00	0.00
	Dulhasti-HPS	390	387	405	392	9.34	389	9.39	-0.04
	Sewa-II HPS	120	119	32	0	0.89	37	0.95	-0.07
	<b>Sub Total (C)</b>	<b>3305</b>	<b>2911</b>	<b>2746</b>	<b>2828</b>	<b>65.07</b>	<b>2711</b>	<b>65.76</b>	<b>-0.69</b>
D. NJPC	Nathpa Jhakri	1500	1605	1619	1617	38.35	1598	38.20	0.15
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>1619</b>	<b>1617</b>	<b>38.35</b>	<b>1598</b>	<b>38.20</b>	<b>0.15</b>
E. THDC	Tehri HPS	1000	823	861	808	19.54	814	19.72	-0.18
	Koteswar HPS	400	376	381	273	7.82	326	8.00	-0.18
	<b>Sub Total (E)</b>	<b>1400</b>	<b>1199</b>	<b>1242</b>	<b>1081</b>	<b>27.35</b>	<b>1140</b>	<b>27.72</b>	<b>-0.37</b>
F. BBMB	Bhakra HPS	1480	1302	1336	1355	31.83	1326	31.25	0.58
	Dehar HPS	990	114	495	0	2.95	123	2.74	0.21
	Pong HPS	396	177	372	66	4.53	189	4.24	0.29
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1593</b>	<b>2203</b>	<b>1421</b>	<b>39.31</b>	<b>1638</b>	<b>38.24</b>	<b>1.07</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	231	231	5.50	229	5.29	0.21
	KWHEP HPS(IPP)	1000	0	1200	1175	28.31	1179	28.51	-0.20
	Malana Stg-II HPS	100	0	113	113	2.71	113	2.51	0.20
	Shree Cement TPS	300	0	253	150	4.93	205	5.02	-0.10
	Budhil HPS(IPP)	70	0	70	70	1.66	69	1.66	0.00
	<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1867</b>	<b>1739</b>	<b>43.10</b>	<b>1796</b>	<b>42.99</b>	<b>0.11</b>
<b>H. Total Regional Entities (A-G)</b>	<b>22836</b>	<b>17904</b>	<b>18486</b>	<b>16947</b>	<b>399.90</b>	<b>16662</b>	<b>406.06</b>	<b>-6.16</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	1040	1060	24.40	1017	
	Guru Nanak Dev TPS(Bhatinda)	440	180	190	4.04	168	
	Guru Hargobind Singh TPS(L.mbt)	920	953	937	18.50	771	
	Goindwal(GVK)		0	0	0.00	0	
	Thermal (Total)	2620	2173	2187	46.94	1956	
	Total Hydro	1148	797	796	18.32	763	
	<b>Total Punjab</b>	<b>3768</b>	<b>2970</b>	<b>2983</b>	<b>65.26</b>	<b>2719</b>	
Haryana	Panipat TPS	1367	596	593	14.33	597	
	DCRTPP (Yamuna nagar)	600	0	0	0.00	0	
	Faridabad GPS (NTPC)	432	370	303	7.76	323	
	RGTPP (khedar) (IPP)	1200	872	900	21.98	916	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	1320	860	857	21.90	913	
	Thermal (Total)	4944	2698	2653	65.97	2749	
	Total Hydro	62	20	23	0.55	23	
		<b>Total Haryana</b>	<b>5006</b>	<b>2718</b>	<b>2676</b>	<b>66.52</b>	<b>2772</b>
	Rajasthan	kota TPS	1240	879	884	21.09	879
suratgarh TPS		1500	934	937	21.94	914	
Chabra TPS		500	194	194	4.57	191	
Dholpur GPS		330	128	128	3.03	126	
Ramgarh GPS		111	25	23	0.71	30	
RAPS A (NPC)		300	165	165	4.32	180	
Barsingar (NLC)		250	0	0	0.00	0	
Giral LTPS		250	62	62	1.34	56	
Rajwest LTPS (IPP)		1080	655	655	15.77	657	
VSLP LTPS (IPP)		135	0	0	0.00	0	
Kalisindh Thermal		600	0	0	0.00	0	
Kawai(Adani)		660	0	0	0.00	0	
Thermal (Total)		6956	3042	3048	72.77	3032	
Total Hydro		550	0	0	0.00	0	
Wind power		2191	801	912	22.23	926	
Biomass		91	25	25	0.61	25	
Solar		201	0	0	1.90	79	
		Renewable/Others (Total)	2483	826	937	24.74	1031
	<b>Total Rajasthan</b>	<b>9989</b>	<b>3868</b>	<b>3985</b>	<b>97.51</b>	<b>4063</b>	
UP	Anpara TPS	1630	1328	1282	27.90	1163	
	Obra TPS	1288	524	500	10.10	421	
	Paricha TPS	1140	233	418	9.60	400	
	Panki TPS	210	165	120	3.10	129	
	Harduaganj TPS	665	396	389	7.70	321	
	Tanda TPS (NTPC)	440	393	399	9.52	396	
	Roza TPS (IPP)	1200	810	1008	21.20	883	
	Anpara-C (IPP)	1200	644	401	11.87	495	
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	167	312	6.98	291	
	Thermal (Total)	8223	4660	4829	107.96	4498	
	Vishnuparyag HPS (IPP)	400	0	0	0.00	0	
	Other Hydro	527	113	166	3.40	142	
	Cogeneration	981	125	125	3.00	125	
		<b>Total UP</b>	<b>10131</b>	<b>4898</b>	<b>5120</b>	<b>114.36</b>	<b>4765</b>
	Uttarakhand	Total Hydro	1303	347	488	10.87	453
<b>Total Uttarakhand</b>		<b>1303</b>	<b>347</b>	<b>488</b>	<b>10.87</b>	<b>453</b>	
Delhi	Rajghat TPS	135	89	92	2.46	102	
	Delhi Gas Turbine	282	109	77	2.46	103	
	Pragati Gas Turbine	330	263	263	6.54	273	
	Rithala GPS	95	0	0	0.00	0	
	Bawana GPS	686	257	217	5.62	234	
	Badarpur TPS (NTPC)	705	510	510	11.56	482	
	Thermal (Total)	2232	1228	1159	28.64	1193	
		<b>Total Delhi</b>	<b>2232</b>	<b>1228</b>	<b>1159</b>	<b>28.64</b>	<b>1193</b>
HP	Baspa HPS (IPP)	330	332	332	7.63	318	
	Malana HPS (IPP)	86	107	106	2.56	106	
	Other Hydro	589	569	480	12.65	527	
		<b>Total HP</b>	<b>1005</b>	<b>1008</b>	<b>918</b>	<b>22.84</b>	<b>952</b>
J & K	Baglihar HPS (IPP)	450	436	436	10.47	436	
	Other Hydro	323	130	140	3.30	137	
	Gas/Diesel/Others	183	0	0	0.00	0	
		<b>Total J &amp; K</b>	<b>956</b>	<b>566</b>	<b>576</b>	<b>13.77</b>	<b>574</b>
<b>Total State Control Area Generation</b>		<b>34390</b>	<b>17603</b>	<b>17905</b>	<b>419.76</b>	<b>17490</b>	
<b>J. Net Inter Regional Exchange</b> [Import (+ve)/Export (-ve)]			<b>3067</b>	<b>4213</b>	<b>77.91</b>	<b>3246</b>	
<b>Total Regional Availability(Gross)</b>		<b>57226</b>	<b>39156</b>	<b>39065</b>	<b>897.57</b>	<b>37399</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	9354	8466	206.59	8608
State Control Area Hydro	5368	2851	2967	69.75	2906
<b>Total Regional Hydro</b>	<b>15731</b>	<b>12205</b>	<b>11433</b>	<b>276.34</b>	<b>11514</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	-200	200	200	200	0.65	4.20	-3.55
Gwalior-Agra (D/C)	1157	1133	1624	0	24.00	0.00	24.00
Zerda-Kankroli	-70	-100	58	331	0.00	3.54	-3.54
Zerda-Bhinmal	-84	-127	81	351	0.00	4.03	-4.03
Malanpur-Auraiya	-54	-53	0	117	0.00	1.51	-1.51
Badod-Kota/Morak	-37	-48	0	153	0.00	1.75	-1.75
Mundra-Mohindergarh(HVDC)	1251	1447	1450	0	31.31	0.00	31.31
<b>Sub Total WR</b>	<b>1963</b>	<b>2452</b>			<b>55.97</b>	<b>15.03</b>	<b>40.94</b>
Pusauli Bypass	-304	-173	0	351	0.00	4.76	-4.76
MZP- GKP (D/C)	568	806	860	0	17.11	0.00	17.11
Patna-Balia(D/C)	309	465	533	0	9.65	0.00	9.65
B Sharif-Balia (D/C)	207	273	311	0	6.07	0.00	6.07
Pusauli-Balia	-30	-34	0	39	0.00	0.60	-0.60
Gaya-Fatehpur (765 Kv)	0	47	144	0	0.74	0.00	0.74
Pusauli-Sahupuri	122	166	166	0	3.38	0.00	3.38
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)	270	251	326	0	6.27	0.00	6.27
<b>Sub Total ER</b>	<b>1104</b>	<b>1761</b>			<b>43.22</b>	<b>6.25</b>	<b>36.96</b>
<b>Total IR Exch</b>	<b>3067</b>	<b>4213</b>			<b>99.18</b>	<b>21.28</b>	<b>77.91</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
34.07	3.80	37.86	4.38	38.42	-4.80	-10.58	2.33	-2.33

  

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
39.77	69.75	109.53	36.96	40.94	77.91	-2.81	-28.81	-31.62

**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	62.80	0.00	62.80	90.90	37.20

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					
50.47	13.03	49.82	20.18	50.16	0.38	0.11	50.50	49.98

**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	16:15	404	00:13	0.0	0.0	0.0	0.0
Gorakhpur	400	415	15:27	404	01:13	0.0	0.0	0.0	0.0
Bareilly	400	418	07:32	401	00:13	0.0	0.0	0.0	0.0
Kanpur	400	420	04:08	406	00:11	0.0	0.0	0.0	0.0
Dadri	400	416	06:06	401	11:51	0.0	0.0	0.0	0.0
Ballabgarh	400	424	04:02	409	09:57	0.0	0.0	21.7	0.0
Bawana	400	418	08:01	405	00:09	0.0	0.0	0.0	0.0
Bassi	400	427	03:58	410	09:41	0.0	0.0	26.4	0.0
Hissar	400	409	07:52	392	01:25	0.0	0.0	0.0	0.0
Moga	400	414	06:20	402	00:06	0.0	0.0	0.0	0.0
Abdullapur	400	409	04:05	398	09:28	0.0	0.0	0.0	0.0
Nalagarh	400	412	06:05	403	09:28	0.0	0.0	0.0	0.0
Kishenpur	400	420	06:05	407	14:53	0.0	0.0	0.0	0.0
Wagoora	400	420	03:41	400	07:41	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	0	00:00	9999	00:00	0.0	0.0	0.0	0.0
Balia	765	761	16:09	727	00:11	0.3	37.8	0.0	0.0
Moga	765	789	07:54	766	00:07	0.0	0.0	0.0	0.0
Agra	765	808	04:10	777	00:09	0.0	0.0	14.2	0.0
Bhiwani	765	790	18:03	774	22:18	0.0	0.0	0.0	0.0
Unnao	765	772	16:05	748	00:05	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	494.78	891.94	469.73	262.21	1961.85	1058.20
Pong	426.72	384.05	405.37	352.07	393.50	102.14	1026.51	194.42
Tehri	829.79	740.04	781.90	358.00	818.65	982.26	680.47	537.00
Koteshwar	612.50	598.50	NA	NA	NA	NA	NA	NA
Chamera-I	760.00	748.75	NA	NA	NA	NA	373.00	351.89
Rihand	268.22	252.98	254.42	65.50	254.17	44.30	325.13	NA
RPS	352.80	343.81	349.00	NA	NA	NA	NA	54.71
Jawahar Sagar	298.70	295.78	298.12	NA	NA	NA	NA	7.36
RSD	527.91	487.91	512.12	144.00	499.33	124.80	363.98	461.48

\* NA: Not Available

**X. System Constraints:**

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

**XII. Weather Conditions For 08.07.2013 :**

1. Rains in J&K / Punjab/Uttarakhand and Hot & Humid Weather in rest parts of NR.

**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 BHAL(280MW)/Uttarakhand closed down due to flush flooding.

Report for : 08.07.2013

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER