

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 08.06.2013  
Date of Reporting : 09.06.2013

### 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
36770	1744	38514	50.04	38019	449	38468	50.29	910.4	23.66

\* 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	37.60	13.84		51.44	107.45	108.09	0.64	159.52	0.00
Haryana	54.91	0.72		55.63	83.87	82.92	-0.96	138.55	0.00
Rajasthan	82.86	0.00	20.61	103.47	65.88	61.83	-4.05	165.30	0.00
Delhi	25.97			25.97	82.94	81.02	-1.92	106.99	0.33
UP	117.46	14.15	5.40	137.01	110.82	107.04	-3.78	244.05	21.63
Uttarakhand		17.62		17.62	16.73	16.93	0.20	34.55	0.00
HP		22.08		22.08	4.77	3.70	-1.06	25.79	0.00
J & K		13.42	0.00	13.42	16.57	16.43	-0.13	29.86	1.70
Chandigarh				0.00	5.56	5.76	0.20	5.76	0.00
<b>Total</b>	<b>318.81</b>	<b>81.83</b>	<b>26.01</b>	<b>426.65</b>	<b>494.58</b>	<b>483.71</b>	<b>-10.86</b>	<b>910.36</b>	<b>23.66</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	6464	0	-91	1316	6367	0	6	1058	31.22	
Haryana	5962	0	41	903	5584	0	-118	804	19.11	
Rajasthan	6076	0	-623	496	7028	0	-196	499	11.61	
Delhi	4583	4	157	227	4348	4	-76	235	8.00	
UP	9468	1640	-210	100	10995	445	-172	880	10.20	
Uttarakhand	1674	0	185	151	1476	0	-16	154	3.28	
HP	977	0	-173	-1084	956	0	-48	-1064	-23.70	
J&K	1316	100	35	-417	1028	0	-188	-417	-10.01	
Chandigarh	249	0	5	0	237	0	27	0	0.18	
<b>Total</b>	<b>36770</b>	<b>1744</b>	<b>-674</b>	<b>1692</b>	<b>38019</b>	<b>449</b>	<b>-781</b>	<b>2151</b>	<b>49.89</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 Net MU
A. NTPC	Singrauli STPS	2000	1930	2055	2077	45.91	1913	45.86	0.04
	Rihand I STPS	1000	909	916	987	20.15	839	20.18	-0.04
	Rihand II STPS	1000	965	934	846	21.23	885	21.03	0.20
	Rihand III STPS	500	275	0	405	5.20	217	5.77	-0.57
	Dadri I STPS	840	809	640	626	15.47	645	15.62	-0.14
	Dadri II STPS	980	973	1004	714	19.83	826	20.13	-0.29
	Unchahar I TPS	420	402	430	345	8.28	345	9.00	-0.72
	Unchahar II TPS	420	199	203	209	4.00	167	4.13	-0.13
	Unchahar III TPS	210	200	207	188	3.99	166	4.07	-0.08
	ISTPP (Jhajjar)	1500	470	421	314	7.39	308	8.07	-0.68
	Dadri GPS	830	782	253	352	6.76	282	7.32	-0.56
	Anta GPS	419	398	199	203	4.87	203	5.00	-0.13
	Auraiya GPS	663	616	148	155	3.50	146	3.58	-0.09
	<b>Sub Total (A)</b>	<b>10782</b>	<b>8929</b>	<b>7410</b>	<b>7421</b>	<b>166.59</b>	<b>6941</b>	<b>169.77</b>	<b>-3.18</b>
B. NPC	NAPS	440	290	324	330	6.95	290	6.96	-0.01
	RAPS- B	440	384	428	437	9.29	387	9.22	0.08
	RAPS- C	440	430	456	461	9.74	406	10.32	-0.58
	<b>Sub Total (B)</b>	<b>1320</b>	<b>1104</b>	<b>1208</b>	<b>1228</b>	<b>25.99</b>	<b>1083</b>	<b>26.50</b>	<b>-0.51</b>
C. NHPC	Chamera I HPS	540	540	540	540	13.03	543	12.96	0.07
	Chamera II HPS	300	310	311	308	7.31	305	7.39	-0.08
	Chamera III HPS	231	231	233	233	5.53	230	5.56	-0.03
	Bairasul HPS	180	179	179	120	2.67	111	2.84	-0.17
	Salal-HPS	690	645	661	662	15.54	648	15.49	0.05
	Tanakpur-HPS	94	81	91	74	1.91	79	1.89	0.02
	Uri-HPS	480	477	474	476	11.44	476	11.31	0.12
	Dhauliganga-HPS	280	280	280	278	6.69	279	6.71	-0.02
	Dulhasi-HPS	390	387	409	397	9.18	383	9.17	0.02
	Sewa-II HPS	120	119	121	0	1.26	52	1.17	0.09
	<b>Sub Total (C)</b>	<b>3305</b>	<b>3250</b>	<b>3299</b>	<b>3088</b>	<b>74.55</b>	<b>3106</b>	<b>74.50</b>	<b>0.05</b>
D. NJPC	Nathpa Jhakri	1500	1605	1613	1621	38.65	1610	38.52	0.13
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>1613</b>	<b>1621</b>	<b>38.65</b>	<b>1610</b>	<b>38.52</b>	<b>0.13</b>
E. THDC	Tehri HPS	1000	550	550	550	12.46	519	12.50	-0.04
	<b>Sub Total (E)</b>	<b>1400</b>	<b>839</b>	<b>835</b>	<b>838</b>	<b>18.81</b>	<b>784</b>	<b>18.90</b>	<b>-0.09</b>
F. BBMB	Bhakra HPS	1480	1140	1256	1099	28.18	1174	27.36	0.82
	Dehar HPS	990	600	825	610	15.08	628	14.41	0.67
	Pong HPS	396	118	292	120	3.20	133	2.83	0.37
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1858</b>	<b>2373</b>	<b>1829</b>	<b>46.46</b>	<b>1936</b>	<b>44.60</b>	<b>1.86</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	234	202	5.07	211	4.61	0.46
	KWHEP HPS(IPP)	1000	0	1148	1163	28.43	1185	28.50	-0.06
	Malana Stg-II HPS	100	0	110	97	2.29	95	2.02	0.26
	Shree Cement TPS	300	0	256	262	6.27	261	6.41	-0.14
	Budhil HPS(IPP)	70	0	34	34	0.64	27	0.72	-0.08
	<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1782</b>	<b>1758</b>	<b>42.71</b>	<b>1780</b>	<b>42.26</b>	<b>0.45</b>
<b>H. Total Regional Entities (A-G)</b>	<b>22836</b>	<b>17585</b>	<b>18520</b>	<b>17783</b>	<b>413.75</b>	<b>17240</b>	<b>415.04</b>	<b>-1.29</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	870	630	18.20	758
	Guru Nanak Dev TPS(Bhatinda)	440	195	217	4.44	185
	Guru Hargobind Singh TPS(L.mbt)	920	527	724	14.96	623
	Goindwal(GVK)		0	0	0.00	0
	Thermal (Total)	2620	1592	1571	37.60	1567
	Total Hydro	1148	552	479	13.84	576
<b>Total Punjab</b>	<b>3768</b>	<b>2144</b>	<b>2050</b>	<b>51.44</b>	<b>2143</b>	
Haryana	Panipat TPS	1367	884	774	21.12	880
	DCRTPP (Yamuna nagar)	600	259	284	6.34	264
	Faridabad GPS (NTPC)	432	181	147	4.17	174
	RGTPP (khedar) (IPP)	1200	47	552	12.35	514
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	395	219	10.94	456
	Thermal (Total)	4944	1766	1976	54.91	2288
	Total Hydro	62	30	0	0.72	30
	<b>Total Haryana</b>	<b>5006</b>	<b>1796</b>	<b>1976</b>	<b>55.63</b>	<b>2318</b>
	Rajasthan	kota TPS	1240	891	881	20.93
suratgarh TPS		1500	936	1103	23.53	981
Chabra TPS		500	198	195	4.74	197
Dholpur GPS		330	107	128	2.86	119
Ramgarh GPS		111	46	64	1.54	64
RAPS A (NPC)		300	179	179	4.35	181
Barsingar (NLC)		250	182	204	4.26	177
Giral LTPS		250	44	44	1.52	63
Rajwest LTPS (IPP)		1080	315	396	8.69	362
VSLP LTPS (IPP)		135	0	0	0.00	0
Kalisindh Thermal		600	0	0	0.00	0
Kawai(Adani)		660	432	427	10.45	435
Thermal (Total)		6956	3330	3621	82.86	3453
Total Hydro		550	0	0	0.00	0
Wind power		2191	842	1109	18.35	765
Biomass		91	22	22	0.52	22
Solar		201	0	0	1.74	72
Renewable/Others (Total)		2483	864	1131	20.61	859
<b>Total Rajasthan</b>	<b>9989</b>	<b>4194</b>	<b>4752</b>	<b>103.47</b>	<b>4311</b>	
UP	Anpara TPS	1630	1161	1178	28.30	1179
	Obra TPS	1288	482	490	11.90	496
	Paricha TPS	1140	567	679	14.00	583
	Panki TPS	210	63	68	1.40	58
	Harduaganj TPS	665	376	373	8.30	346
	Tanda TPS (NTPC)	440	296	289	7.25	302
	Roza TPS (IPP)	1200	999	1005	23.88	995
	Anpara-C (IPP)	1200	387	675	14.00	584
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	401	369	8.43	351
	Thermal (Total)	8223	4732	5126	117.46	4894
	Vishnuparyag HPS (IPP)	400	436	436	10.02	417
	Other Hydro	527	146	188	4.13	172
	Cogeneration	981	225	225	5.40	225
	<b>Total UP</b>	<b>10131</b>	<b>5539</b>	<b>5975</b>	<b>137.01</b>	<b>5291</b>
	Uttarakhand	Total Hydro	1303	783	762	17.62
<b>Total Uttarakhand</b>		<b>1303</b>	<b>783</b>	<b>762</b>	<b>17.62</b>	<b>734</b>
Delhi	Rajghat TPS	135	95	107	2.28	95
	Delhi Gas Turbine	282	154	159	3.62	151
	Pragati Gas Turbine	330	282	262	6.62	276
	Rithala GPS	95	94	0	0.22	9
	Bawana GPS	686	0	0	0.00	0
	Badarpur TPS (NTPC)	705	580	570	13.23	551
	Thermal (Total)	2232	1205	1098	25.97	1082
	<b>Total Delhi</b>	<b>2232</b>	<b>1205</b>	<b>1098</b>	<b>25.97</b>	<b>1082</b>
HP	Baspa HPS (IPP)	330	304	304	7.63	318
	Malana HPS (IPP)	86	67	81	1.87	78
	Other Hydro	589	536	510	12.59	525
	<b>Total HP</b>	<b>1005</b>	<b>907</b>	<b>895</b>	<b>22.08</b>	<b>920</b>
J & K	Baglihar HPS (IPP)	450	436	436	10.47	436
	Other Hydro	323	110	128	2.95	123
	Gas/Diesel/Others	183	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>956</b>	<b>546</b>	<b>564</b>	<b>13.42</b>	<b>559</b>
<b>Total State Control Area Generation</b>		<b>34390</b>	<b>17114</b>	<b>18072</b>	<b>426.65</b>	<b>17360</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>3935</b>	<b>3326</b>	<b>88.88</b>	<b>3703</b>
<b>Total Regional Availability(Gross)</b>		<b>57226</b>	<b>39569</b>	<b>39181</b>	<b>929.28</b>	<b>38302</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	9612	8838	214.26	8927
State Control Area Hydro	5368	2964	2888	81.83	2992
<b>Total Regional Hydro</b>	<b>15731</b>	<b>12576</b>	<b>11726</b>	<b>296.09</b>	<b>11920</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	300	400	0	5.94	0.00	5.94
Gwalior-Agra (D/C)	1488	1270	1762	0	31.76	0.00	31.76
Zerda-Kankroli	-43	-175	44	275	0.00	2.77	-2.77
Zerda-Bhinmal	-66	-122	128	242	0.00	1.32	-1.32
Malanpur-Auraiya	-37	-25	0	62	0.00	0.62	-0.62
Badod-Kota/Morak	-38	-9	47	73	0.00	0.01	-0.01
Mundra-Mohindergarh(HVDC)	873	541	1173	0	14.70	0.00	14.70
<b>Sub Total WR</b>	<b>2377</b>	<b>1780</b>			<b>52.40</b>	<b>4.72</b>	<b>47.68</b>
Pusauli Bypass	200	400	400	0	7.62	0.00	7.62
MZP- GKP (D/C)	480	430	730	0	13.00	0.00	13.00
Patna-Balia(D/C)	484	494	621	0	12.02	0.00	12.02
B Sharif-Balia (D/C)	172	130	306	0	4.07	0.00	4.07
Pusauli-Balia	-50	-113	0	144	0.00	1.87	-1.87
Gaya-Fatehpur (765 Kv)	165	20	153	0	2.49	0.00	2.49
Pusauli-Sahupuri	145	162	175	0	3.65	0.00	3.65
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)	0	63	169	0	1.12	0.00	1.12
<b>Sub Total ER</b>	<b>1558</b>	<b>1546</b>			<b>43.97</b>	<b>2.77</b>	<b>41.21</b>
<b>Total IR Exch</b>	<b>3935</b>	<b>3326</b>			<b>96.37</b>	<b>7.49</b>	<b>88.88</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
36.98	3.74	40.71	0.95	14.70	3.40	-7.48	-1.90	1.90

  

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
43.17	51.89	95.06	41.21	47.68	88.88	-1.97	-4.21	-6.18

**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	1.60	84.00	4.20	82.40	61.40	16.00

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				
50.55	6.03	49.53	14.21	50.04	0.25	0.02	50.50	49.73

**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	410	06:57	401	00:00	0.0	0.0	0.0	0.0
Gorakhpur	400	429	06:29	407	00:00	0.0	0.0	31.0	0.0
Bareilly	400	0	00:00	9999	00:00	0.0	0.0	0.0	0.0
Kanpur	400	420	06:02	398	14:20	0.0	0.0	0.0	0.0
Dadri	400	416	06:02	397	14:21	0.0	0.0	0.0	0.0
Ballabhgarh	400	423	06:03	396	14:22	0.0	0.0	5.1	0.0
Bawana	400	417	06:03	400	12:28	0.0	0.0	0.0	0.0
Bassi	400	427	18:59	400	12:26	0.0	0.0	12.0	0.0
Hissar	400	409	06:04	392	12:26	0.0	0.0	0.0	0.0
Moga	400	415	19:03	400	09:45	0.0	0.0	0.0	0.0
Abdullapur	400	414	06:02	401	23:06	0.0	0.0	0.0	0.0
Nalagarh	400	412	06:01	400	12:26	0.0	0.0	0.0	0.0
Kishenpur	400	410	17:05	401	12:26	0.0	0.0	0.0	0.0
Wagoora	400	412	17:04	400	05:43	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	775	06:06	727	23:10	0.4	34.0	0.0	0.0
Moga	765	782	18:02	750	09:45	0.0	0.0	0.0	0.0
Agra	765	812	06:03	714	16:20	0.1	0.1	9.8	0.0
Bhiwani	765	785	06:05	752	12:26	0.0	0.0	0.0	0.0
Unnao	765	782	06:03	733	23:10	0.0	11.4	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	481.46	495.33	469.45	257.12	1396.56	967.59
Pong	426.72	384.05	399.98	216.87	399.06	197.21	312.87	126.77
Tehri	829.79	740.04	746.80	32.00	818.65	982.26	394.06	425.00
Koteshwar	612.50	598.50	607.90	3.98	NA	NA	437.00	417.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	369.91	353.19
Rihand	268.22	252.98	255.64	101.60	255.85	110.20	NA	NA
RPS	352.80	343.81	347.51	NA	NA	NA	NA	NA
Jawahar Sagar	298.70	295.78	297.94	NA	NA	NA	NA	NA
RSD	527.91	487.91	510.33	NA	501.56	NA	320.21	230.41

\* NA: Not Available

**X. System Constraints:**

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

**XII. Weather Conditions For 08.06.2013 :**

1. Hot & Humid weather in 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 :**

Report for : 08.06.2013

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER