

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 21.06.2013  
Date of Reporting : 22.06.2013

### 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
38740	1640	40380	50.02	37891	1190	39081	50.13	921.9	50.35

\* 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	50.83	17.56		68.38	124.86	123.96	-0.91	192.34	2.25
Haryana	41.23	0.66		41.88	106.25	105.18	-1.07	147.06	0.02
Rajasthan	71.69	0.05	32.40	104.14	57.66	51.10	-6.55	155.24	1.36
Delhi	25.89			25.89	79.49	77.42	-2.07	103.31	0.31
UP	118.47	2.53	3.60	124.60	106.14	104.76	-1.38	229.36	42.65
Uttarakhand		10.53		10.53	19.69	21.96	2.27	32.48	2.05
HP		22.09		22.09	4.18	4.73	0.54	26.81	0.01
J & K		13.42	0.00	13.42	14.55	15.96	1.40	29.38	1.70
Chandigarh				0.00	5.57	5.89	0.32	5.89	0.00
<b>Total</b>	<b>308.10</b>	<b>66.82</b>	<b>36.00</b>	<b>410.92</b>	<b>518.39</b>	<b>510.95</b>	<b>-7.44</b>	<b>921.88</b>	<b>50.35</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	8438	180	-69	1921	7691	0	-75	2012	47.63	
Haryana	6476	0	-293	1106	6042	0	-17	1089	25.20	
Rajasthan	5974	0	-634	326	6515	0	-180	314	7.11	
Delhi	4618	0	-65	156	3940	0	28	-141	2.73	
UP	9102	1360	-332	148	10225	1050	-143	603	7.55	
Uttarakhand	1551	0	132	403	1261	140	40	230	6.43	
HP	1046	0	-99	-885	976	0	2	-1019	-22.11	
J&K	1287	100	81	-339	1036	0	-19	-409	-8.64	
Chandigarh	249	0	-17	0	205	0	5	0	0.09	
<b>Total</b>	<b>38740</b>	<b>1640</b>	<b>-1295</b>	<b>2836</b>	<b>37891</b>	<b>1190</b>	<b>-359</b>	<b>2678</b>	<b>65.98</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	Net MU
A. NTPC	Singrauli STPS	2000	1604	1573	2071	37.83	1576	38.46	-0.63
	Rihand I STPS	1000	476	488	517	11.51	480	11.32	0.20
	Rihand II STPS	1000	968	1003	1048	22.39	933	22.81	-0.42
	Rihand III STPS	500	444	484	467	10.36	432	10.38	-0.02
	Dadri I STPS	840	810	832	853	17.10	712	17.55	-0.46
	Dadri II STPS	980	975	967	710	20.36	848	20.74	-0.38
	Unchahar I TPS	420	403	413	375	9.13	380	9.33	-0.20
	Unchahar II TPS	420	201	200	192	4.40	183	4.46	-0.06
	Unchahar III TPS	210	200	188	178	4.35	181	4.39	-0.04
	ISTPP (Jhajhar)	1500	1203	274	174	12.51	521	13.09	-0.58
	Dadri GPS	830	599	440	534	10.85	452	10.97	-0.13
	Anta GPS	419	398	0	0	0.00	0	0.00	0.00
	Auraiva GPS	663	629	268	305	6.59	274	6.37	0.22
	<b>Sub Total (A)</b>	<b>10782</b>	<b>8909</b>	<b>7130</b>	<b>7424</b>	<b>167.38</b>	<b>6974</b>	<b>169.88</b>	<b>-2.50</b>
B. NPC	NAPS	440	296	324	334	6.95	290	7.10	-0.16
	RAPS- B	440	388	427	435	9.24	385	9.31	-0.08
	RAPS- C	440	400	434	453	9.45	394	9.60	-0.15
	<b>Sub Total (B)</b>	<b>1320</b>	<b>1084</b>	<b>1185</b>	<b>1222</b>	<b>25.63</b>	<b>1068</b>	<b>26.02</b>	<b>-0.38</b>
C. NHPC	Chamera I HPS	540	540	540	540	13.02	543	12.96	0.06
	Chamera II HPS	300	306	309	307	7.34	306	7.35	-0.01
	Chamera III HPS	231	231	235	232	5.55	231	5.57	-0.02
	Bairasuil HPS	180	179	180	20	2.11	88	1.91	0.20
	Salal-HPS	690	666	672	670	16.09	671	15.96	0.13
	Tanakpur-HPS	94	0	0	0	0.00	0	0.00	0.00
	Uri-HPS	480	471	468	472	11.42	476	11.41	0.01
	Dhauliganga-HPS	280	0	0	0	0.00	0	0.00	0.00
	Dulhasti-HPS	390	387	406	381	9.38	391	9.38	0.00
	Sewa-II HPS	120	119	125	0	1.28	53	1.18	0.10
<b>Sub Total (C)</b>	<b>3305</b>	<b>2899</b>	<b>2935</b>	<b>2622</b>	<b>66.18</b>	<b>2758</b>	<b>65.71</b>	<b>0.47</b>	
D. NJPC	Nathpa Jhakri	1500	1605	1619	1616	38.59	1608	38.52	0.07
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>1619</b>	<b>1616</b>	<b>38.59</b>	<b>1608</b>	<b>38.52</b>	<b>0.07</b>
E. THDC	Tehri HPS	1000	780	782	789	17.22	717	17.00	0.22
	Koteswar HPS	400	289	296	295	6.88	286	6.85	0.03
	<b>Sub Total (E)</b>	<b>1400</b>	<b>1069</b>	<b>1078</b>	<b>1084</b>	<b>24.09</b>	<b>1004</b>	<b>23.85</b>	<b>0.24</b>
F. BBMB	Bhakra HPS	1480	1016	1260	946	24.58	1024	24.37	0.21
	Dehar HPS	990	611	825	630	15.12	630	14.66	0.46
	Pong HPS	396	67	186	0	1.65	69	1.61	0.04
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1693</b>	<b>2271</b>	<b>1576</b>	<b>41.35</b>	<b>1723</b>	<b>40.64</b>	<b>0.71</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	226	170	4.27	178	3.91	0.35
	KWHEP HPS(IPP)	1000	0	1199	1199	28.42	1184	27.29	1.12
	Malana Stg-II HPS	100	0	80	66	1.62	68	1.54	0.08
	Shree Cement TPS	300	0	274	203	6.05	252	6.37	-0.33
	Budhil HPS(IPP)	70	0	69	59	1.54	64	1.46	0.08
	<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1848</b>	<b>1697</b>	<b>41.89</b>	<b>1745</b>	<b>40.58</b>	<b>1.31</b>
<b>H. Total Regional Entities (A-G)</b>	<b>22836</b>	<b>17259</b>	<b>18066</b>	<b>17241</b>	<b>405.11</b>	<b>16880</b>	<b>405.19</b>	<b>-0.08</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	1260	1060	26.75	1115	
	Guru Nanak Dev TPS(Bhatinda)	440	205	180	4.20	175	
	Guru Hargobind Singh TPS(L.mbt)	920	943	778	19.88	828	
	Goindwal(GVK)		0	0	0.00	0	
	Thermal (Total)	2620	2408	2018	50.83	2118	
	Total Hydro	1148	802	670	17.56	731	
	<b>Total Punjab</b>	<b>3768</b>	<b>3210</b>	<b>2688</b>	<b>68.38</b>	<b>2849</b>	
<b>Haryana</b>	Panipat TPS	1367	446	636	12.01	500	
	DCRTPP (Yamuna nagar)	600	280	278	6.61	276	
	Faridabad GPS (NTPC)	432	178	184	4.16	173	
	RGTPP (khedar) (IPP)	1200	1104	574	18.45	769	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	1320	0	0	0.00	0	
	Thermal (Total)	4944	2008	1672	41.23	1718	
	Total Hydro	62	27	24	0.66	27	
		<b>Total Haryana</b>	<b>5006</b>	<b>2035</b>	<b>1696</b>	<b>41.88</b>	<b>1745</b>
	<b>Rajasthan</b>	kota TPS	1240	727	712	17.07	711
suratgarh TPS		1500	953	949	22.77	949	
Chabra TPS		500	194	198	4.60	192	
Dholpur GPS		330	109	134	2.45	102	
Ramgarh GPS		111	50	67	1.48	62	
RAPS A (NPC)		300	179	179	4.28	178	
Barsingar (NLC)		250	0	0	0.00	0	
Giral LTPS		250	0	0	0.00	0	
Rajwest LTPS (IPP)		1080	785	927	19.04	793	
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	2997	3166	71.69	2987	
Total Hydro		550	0	9	0.05	2	
Wind power		2191	1264	1179	30.11	1255	
Biomass		91	19	19	0.46	19	
Solar		201	0	0	1.84	77	
		Renewable/Others (Total)	2483	1283	1198	32.40	1350
	<b>Total Rajasthan</b>	<b>9989</b>	<b>4280</b>	<b>4373</b>	<b>104.14</b>	<b>4339</b>	
<b>UP</b>	Anpara TPS	1630	1150	1157	28.00	1167	
	Obra TPS	1288	432	481	11.20	467	
	Paricha TPS	1140	864	771	18.50	771	
	Panki TPS	210	99	54	1.80	75	
	Harduaganj TPS	665	381	191	7.40	308	
	Tanda TPS (NTPC)	440	294	295	7.26	302	
	Roza TPS (IPP)	1200	999	1013	24.31	1013	
	Anpara-C (IPP)	1200	531	517	12.43	518	
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	339	321	7.57	316	
	Thermal (Total)	8223	5089	4800	118.47	4936	
	Vishnuparyag HPS (IPP)	400	0	0	0.00	0	
	Other Hydro	527	102	147	2.53	105	
	Cogeneration	981	150	150	3.60	150	
		<b>Total UP</b>	<b>10131</b>	<b>5341</b>	<b>5097</b>	<b>124.60</b>	<b>5192</b>
	<b>Uttarakhand</b>	Total Hydro	1303	451	431	10.53	439
<b>Total Uttarakhand</b>		<b>1303</b>	<b>451</b>	<b>431</b>	<b>10.53</b>	<b>439</b>	
<b>Delhi</b>	Rajghat TPS	135	70	74	1.94	81	
	Delhi Gas Turbine	282	186	151	4.11	171	
	Pragati Gas Turbine	330	136	142	3.42	142	
	Rithala GPS	95	0	0	0.00	0	
	Bawana GPS	686	198	225	4.25	177	
	Badarpur TPS (NTPC)	705	610	500	12.17	507	
	Thermal (Total)	2232	1200	1092	25.89	1079	
		<b>Total Delhi</b>	<b>2232</b>	<b>1200</b>	<b>1092</b>	<b>25.89</b>	<b>1079</b>
<b>HP</b>	Baspa HPS (IPP)	330	330	330	7.93	330	
	Malana HPS (IPP)	86	71	45	1.37	57	
	Other Hydro	589	488	560	12.80	533	
		<b>Total HP</b>	<b>1005</b>	<b>889</b>	<b>935</b>	<b>22.09</b>	<b>920</b>
<b>J &amp; K</b>	Baglihar HPS (IPP)	450	438	436	10.46	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>548</b>	<b>564</b>	<b>13.42</b>	<b>559</b>
<b>Total State Control Area Generation</b>		<b>34390</b>	<b>17954</b>	<b>16876</b>	<b>410.92</b>	<b>17122</b>	
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>5218</b>	<b>4733</b>	<b>123.22</b>	<b>5134</b>	
<b>Total Regional Availability(Gross)</b>		<b>57226</b>	<b>41238</b>	<b>38850</b>	<b>939.25</b>	<b>39135</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	9408	8333	204.51	8521
State Control Area Hydro	5368	2819	2780	66.82	2784
<b>Total Regional Hydro</b>	<b>15731</b>	<b>12227</b>	<b>11113</b>	<b>271.33</b>	<b>11305</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	250	400	500	0	8.33	0.00	8.33
Gwalior-Agra (D/C)	1881	1410	1964	0	37.71	0.00	37.71
Zerda-Kankroli	-10	-42	31	167	0.00	1.83	-1.83
Zerda-Bhinmal	-33	-84	112	219	0.00	2.44	-2.44
Malanpur-Auraiya	-68	-38	0	68	0.00	1.05	-1.05
Badod-Kota/Morak	-13	-6	42	56	0.12	0.00	0.12
Mundra-Mohindergarh(HVDC)	1421	1451	1451	0	34.76	0.00	34.76
<b>Sub Total WR</b>	<b>3428</b>	<b>3091</b>			<b>80.92</b>	<b>5.32</b>	<b>75.60</b>
Pusauli Bypass	-193	-273	0	277	0.00	4.46	-4.46
MZP- GKP (D/C)	528	530	792	0	14.90	0.00	14.90
Patna-Balia(D/C)	667	666	828	0	16.52	0.00	16.52
B Sharif-Balia (D/C)	347	421	506	0	9.62	0.00	9.62
Pusauli-Balia	4	53	57	0	0.90	0.00	0.90
Gaya-Fatehpur (765 Kv)	70	-18	143	27	1.73	0.00	1.73
Pusauli-Sahupuri	144	155	169	0	3.48	0.00	3.48
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)	261	148	308	0	5.83	0.00	5.83
<b>Sub Total ER</b>	<b>1790</b>	<b>1642</b>			<b>52.97</b>	<b>5.36</b>	<b>47.62</b>
<b>Total IR Exch</b>	<b>5218</b>	<b>4733</b>			<b>133.89</b>	<b>10.68</b>	<b>123.22</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
43.12	2.05	45.16	7.48	19.14	-0.24	3.18	3.35	-3.34

  

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
55.76	74.57	130.33	47.62	75.60	123.22	-8.14	1.03	-7.11

**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	0.40	92.60	3.80	92.20	52.50	7.40

Frequency (Hz)				Average Frequency Hz	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum	Time	Minimum	Time				MAX (Hz)	MIN (Hz)
50.42	6.05	49.60	22.09	50.01	0.16	0.12	50.40	49.85

**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	407	19:05	397	22:09	0.0	0.0	0.0	0.0
Gorakhpur	400	426	06:58	398	23:34	0.0	0.0	6.5	0.0
Bareilly	400	421	06:07	396	22:11	0.0	0.0	0.0	0.0
Kanpur	400	422	06:05	407	00:00	0.0	0.0	2.9	0.0
Dadri	400	416	06:05	396	12:42	0.0	0.0	0.0	0.0
Ballabgarh	400	424	06:04	400	12:09	0.0	0.0	5.6	0.0
Bawana	400	418	06:05	392	20:14	0.0	0.0	0.0	0.0
Bassi	400	428	04:02	400	23:24	0.0	0.0	12.3	0.0
Hissar	400	408	06:05	389	12:26	0.0	0.1	0.0	0.0
Moga	400	415	06:04	398	12:07	0.0	0.0	0.0	0.0
Abdullapur	400	414	06:05	398	12:08	0.0	0.0	0.0	0.0
Nalagarh	400	410	03:01	396	12:09	0.0	0.0	0.0	0.0
Kishenpur	400	412	04:06	401	09:33	0.0	0.0	0.0	0.0
Wagoora	400	412	04:07	397	09:37	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	784	06:03	744	22:08	0.0	0.0	0.0	0.0
Balia	765	776	06:07	717	22:27	8.1	37.5	0.0	0.0
Moga	765	794	06:06	759	12:10	0.0	0.0	0.0	0.0
Agra	765	806	06:05	757	22:09	0.0	0.0	1.0	0.0
Bhiwani	765	792	06:05	751	12:09	0.0	0.0	0.0	0.0
Unnao	765	774	06:04	739	22:30	0.0	1.9	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	486.71	638.01	465.62	204.14	928.76	798.00
Pong	426.72	384.05	402.45	273.51	395.64	136.17	184.00	113.27
Tehri	829.79	740.04	778.20	297.10	818.65	982.26	462.28	477.00
Koteshwar	612.50	598.50	609.30	4.21	NA	NA	406.00	410.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	311.88	352.34
Rihand	268.22	252.98	254.93	73.80	254.81	69.00	NA	NA
RPS	352.80	343.81	348.32	NA	NA	NA	NA	18.58
Jawahar Sagar	298.70	295.78	297.94	NA	NA	NA	NA	17.92
RSD	527.91	487.91	513.47	NA	499.55	NA	326.07	406.40

\* NA: Not Available

**X. System Constraints:**

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

**XII. Weather Conditions For 21.06.2013 :**

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.

Report for : 21.06.2013

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER