

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 16.06.2013  
Date of Reporting : 17.06.2013

### 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
28155	117	28272	49.97	28170	0	28170	50.57	684.3	4.72

\* 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	8.97	4.72		13.69	105.18	92.69	-12.49	106.38	0.00
Haryana	20.04	0.20		20.24	86.07	70.55	-15.52	90.79	0.00
Rajasthan	73.70	0.00	8.29	81.99	63.25	59.58	-3.68	141.56	0.00
Delhi	17.38			17.38	63.06	57.61	-5.46	74.99	0.48
UP	97.35	1.72	4.20	103.27	96.50	96.02	-0.47	199.29	2.54
Uttarakhand		7.00		7.00	12.17	15.63	3.46	22.63	0.00
HP		19.08		19.08	-0.72	1.34	2.07	20.42	0.00
J & K		13.42	0.00	13.42	13.40	11.49	-1.91	24.91	1.70
Chandigarh				0.00	5.15	3.36	-1.79	3.36	0.00
<b>Total</b>	<b>217.44</b>	<b>46.13</b>	<b>12.49</b>	<b>276.06</b>	<b>444.06</b>	<b>408.27</b>	<b>-35.79</b>	<b>684.33</b>	<b>4.72</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	5181	0	-24	1868	3601	0	-1285	1971	47.35
Haryana	4025	0	-88	1062	3648	0	-1116	1062	24.69
Rajasthan	5007	0	-362	341	5687	0	-44	289	6.67
Delhi	3217	17	253	-95	3306	0	-56	-45	2.50
UP	7609	0	-60	330	9164	0	230	949	14.09
Uttarakhand	964	0	475	-29	1125	0	-162	-43	-1.23
HP	845	0	695	-733	716	0	-80	-1257	-24.92
J&K	1149	100	-2	-321	786	0	-129	-399	-9.00
Chandigarh	158	0	-61	0	137	0	-75	0	0.00
<b>Total</b>	<b>28155</b>	<b>117</b>	<b>827</b>	<b>2422</b>	<b>28170</b>	<b>0</b>	<b>-2717</b>	<b>2527</b>	<b>60.15</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)	Schedule	
								Net MU	UI
A. NTPC	Singrauli STPS	2000	1776	1649	1475	31.85	1327	32.67	-0.82
	Rihand I STPS	1000	915	975	642	15.16	632	16.16	-1.00
	Rihand II STPS	1000	970	907	638	15.87	661	17.13	-1.26
	Rihand III STPS	500	476	507	318	7.69	320	8.44	-0.75
	Dadri I STPS	840	810	520	497	10.18	424	9.74	0.44
	Dadri II STPS	980	975	782	704	16.22	676	17.14	-0.92
	Unchahar I TPS	420	402	362	309	6.70	279	6.95	-0.25
	Unchahar II TPS	420	201	178	152	3.32	138	3.37	-0.05
	Unchahar III TPS	210	201	188	154	3.32	138	3.37	-0.05
	ISTPP (Jhajhar)	1500	940	309	303	6.42	268	7.19	-0.77
	Dadri GPS	830	806	398	401	9.10	379	9.75	-0.64
	Anta GPS	419	398	0	0	0.00	0	0.00	0.00
	Auraiva GPS	663	622	156	157	3.64	152	3.85	-0.21
	<b>Sub Total (A)</b>		<b>10782</b>	<b>9491</b>	<b>6931</b>	<b>5750</b>	<b>129.45</b>	<b>5394</b>	<b>135.74</b>
B. NPC	NAAPS	440	310	335	341	7.20	300	7.44	-0.24
	RAPS- B	440	388	429	432	9.28	387	9.31	-0.03
	RAPS- C	440	420	447	460	9.73	405	10.08	-0.35
	<b>Sub Total (B)</b>		<b>1320</b>	<b>1118</b>	<b>1211</b>	<b>1233</b>	<b>26.21</b>	<b>1092</b>	<b>26.83</b>
C. NHPC	Chamera I HPS	540	540	540	540	13.01	542	12.96	0.05
	Chamera II HPS	300	310	313	285	7.17	299	7.49	-0.32
	Chamera III HPS	231	231	239	217	5.31	221	5.41	-0.10
	Bairasul HPS	180	179	120	110	2.86	119	3.51	-0.65
	Salal-HPS	690	445	660	0	10.33	430	10.68	-0.35
	Tanakpur-HPS	94	77	59	82	1.58	66	1.84	-0.26
	Uri-HPS	480	475	475	456	10.97	457	11.40	-0.43
	Dhauliganga-HPS	280	88	282	281	6.73	281	1.69	5.05
	Dulhasti-HPS	390	387	412	391	9.33	389	9.35	-0.03
	Sewa-II HPS	120	119	123	94	2.44	102	2.81	-0.37
	<b>Sub Total (C)</b>		<b>3305</b>	<b>2850</b>	<b>3223</b>	<b>2456</b>	<b>69.72</b>	<b>2905</b>	<b>67.13</b>
D. NJPC	Nathpa Jhakri	1500	1605	254	1611	30.73	1281	31.03	-0.30
	<b>Sub Total (D)</b>		<b>1500</b>	<b>1605</b>	<b>254</b>	<b>1611</b>	<b>30.73</b>	<b>1281</b>	<b>31.03</b>
E. THDC	Tehri HPS	1000	573	618	375	11.89	495	11.90	-0.02
	Koteshwar HPS	400	289	298	130	5.56	232	6.20	-0.64
<b>Sub Total (E)</b>		<b>1400</b>	<b>862</b>	<b>916</b>	<b>505</b>	<b>17.45</b>	<b>727</b>	<b>18.10</b>	<b>-0.66</b>
F. BBMB	Bhakra HPS	1480	1251	1260	1174	29.86	1244	30.02	-0.16
	Dehar HPS	990	623	825	620	15.02	626	14.95	0.07
	Pong HPS	396	13	123	0	0.33	14	0.31	0.02
	<b>Sub Total (F)</b>		<b>2866</b>	<b>1887</b>	<b>2208</b>	<b>1794</b>	<b>45.21</b>	<b>1884</b>	<b>45.28</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	199	228	4.34	181	5.27	-0.93
	KWHEP HPS(IPP)	1000	0	1200	1127	28.11	1171	28.51	-0.40
	Malana Stg-II HPS	100	0	72	106	2.09	87	1.92	0.16
	Shree Cement TPS	300	0	259	258	5.77	240	6.22	-0.45
	Budhil HPS(IPP)	70	0	35	34	0.82	34	0.72	0.10
	<b>Sub Total (G)</b>		<b>1662</b>	<b>0</b>	<b>1765</b>	<b>1753</b>	<b>41.13</b>	<b>1714</b>	<b>42.65</b>
<b>H. Total Regional Entities (A-G)</b>		<b>22836</b>	<b>17813</b>	<b>16508</b>	<b>15102</b>	<b>359.89</b>	<b>14996</b>	<b>366.77</b>	<b>-6.87</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	170	170	3.70	154	
	Guru Nanak Dev TPS(Bhatinda)	440	105	90	1.98	82	
	Guru Hargobind Singh TPS(L.mbt)	920	210	148	3.30	137	
	Goindwal(GVK)		0	0	0.00	0	
	Thermal (Total)	2620	485	408	8.97	374	
	Total Hydro	1148	376	125	4.72	196	
	<b>Total Punjab</b>	<b>3768</b>	<b>861</b>	<b>533</b>	<b>13.69</b>	<b>570</b>	
<b>Haryana</b>	Panipat TPS	1367	207	375	6.76	282	
	DCRTPP (Yamuna nagar)	600	0	260	3.35	140	
	Faridabad GPS (NTPC)	432	0	0	0.00	0	
	RGTPP (khedar) (IPP)	1200	352	452	9.93	414	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	1320	0	0	0.00	0	
	Thermal (Total)	4944	559	1087	20.04	835	
	Total Hydro	62	0	22	0.20	8	
		<b>Total Haryana</b>	<b>5006</b>	<b>559</b>	<b>1109</b>	<b>20.24</b>	<b>843</b>
	<b>Rajasthan</b>	kota TPS	1240	905	789	21.36	890
suratgarh TPS		1500	740	832	18.01	751	
Chabra TPS		500	194	226	4.78	199	
Dholpur GPS		330	110	110	2.50	104	
Ramgarh GPS		111	57	70	1.61	67	
RAPS A (NPC)		300	189	189	4.35	181	
Barsingsar (NLC)		250	169	204	4.63	193	
Giral LTPS		250	49	49	2.01	84	
Rajwest LTPS (IPP)		1080	482	589	14.44	602	
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	2895	3058	73.70	3071	
Total Hydro		550	0	0	0.00	0	
Wind power		2191	307	0	6.23	259	
Biomass		91	22	22	0.52	22	
Solar		201	0	0	1.54	64	
Renewable/Others (Total)		2483	329	22	8.29	345	
		<b>Total Rajasthan</b>	<b>9989</b>	<b>3224</b>	<b>3080</b>	<b>81.99</b>	<b>3416</b>
<b>UP</b>		Anpara TPS	1630	1133	1013	26.00	1083
	Obra TPS	1288	314	367	8.50	354	
	Paricha TPS	1140	715	798	18.10	754	
	Panki TPS	210	0	59	0.70	29	
	Harduaganj TPS	665	318	330	6.90	288	
	Tanda TPS (NTPC)	440	250	250	6.50	271	
	Roza TPS (IPP)	1200	689	821	18.11	754	
	Anpara-C (IPP)	1200	413	329	9.30	387	
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	0	221	3.24	135	
	Thermal (Total)	8223	3832	4188	97.35	4056	
	Vishnuparyag HPS (IPP)	400	0	0	0.04	2	
	Other Hydro	527	80	131	1.68	70	
	Cogeneration	981	175	175	4.20	175	
		<b>Total UP</b>	<b>10131</b>	<b>4087</b>	<b>4494</b>	<b>103.27</b>	<b>4301</b>
	<b>Uttarakhand</b>	Total Hydro	1303	24	837	7.00	292
<b>Total Uttarakhand</b>		<b>1303</b>	<b>24</b>	<b>837</b>	<b>7.00</b>	<b>292</b>	
<b>Delhi</b>	Rajghat TPS	135	76	97	1.81	75	
	Delhi Gas Turbine	282	80	78	1.96	82	
	Pragati Gas Turbine	330	145	146	3.45	144	
	Rithala GPS	95	0	0	0.00	0	
	Bawana GPS	686	0	0	0.00	0	
	Badarpur TPS (NTPC)	705	420	500	10.17	424	
	Thermal (Total)	2232	721	821	17.38	724	
		<b>Total Delhi</b>	<b>2232</b>	<b>721</b>	<b>821</b>	<b>17.38</b>	<b>724</b>
<b>HP</b>	Baspa HPS (IPP)	330	0	311	5.90	246	
	Malana HPS (IPP)	86	55	97	1.94	81	
	Other Hydro	589	429	541	11.25	469	
		<b>Total HP</b>	<b>1005</b>	<b>484</b>	<b>949</b>	<b>19.08</b>	<b>795</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>10508</b>	<b>12387</b>	<b>276.06</b>	<b>11501</b>	
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>4326</b>	<b>2233</b>	<b>69.31</b>	<b>2888</b>	
<b>Total Regional Availability(Gross)</b>		<b>57226</b>	<b>31342</b>	<b>29722</b>	<b>705.26</b>	<b>29384</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	8072	7827	197.64	8235
State Control Area Hydro	5368	1512	2628	46.13	1920
<b>Total Regional Hydro</b>	<b>15731</b>	<b>9584</b>	<b>10455</b>	<b>243.77</b>	<b>10155</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	50	-200	500	400	1.07	7.41	-6.34
Gwalior-Agra (D/C)	1699	787	1782	0	25.73	0.00	25.73
Zerda-Kankroli	129	-163	136	218	0.00	2.50	-2.50
Zerda-Bhinmal	135	-128	138	234	0.00	1.75	-1.75
Malanpur-Auraiya	-54	-26	0	54	0.00	0.64	-0.64
Badod-Kota/Morak	52	-37	97	88	0.00	0.09	-0.09
Mundra-Mohindergarh(HVDC)	1036	1040	1041	0	24.60	0.00	24.60
<b>Sub Total WR</b>	<b>3047</b>	<b>1273</b>			<b>51.40</b>	<b>12.38</b>	<b>39.02</b>
Pusaali Bypass	-245	-229	0	372	0.00	4.41	-4.41
MZP- GKP (D/C)	520	420	670	0	12.55	0.00	12.55
Patna-Balia(D/C)	495	409	544	0	10.48	0.00	10.48
B Sharif-Balia (D/C)	242	187	286	0	5.27	0.00	5.27
Pusaali-Balia	-2	1	14	16	0.00	0.06	-0.06
Gaya-Fatehpur (765 Kv)	0	-29	93	63	0.01	0.00	0.01
Pusaali-Sahupuri	164	115	164	0	3.32	0.00	3.32
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)	143	126	229	31	4.02	0.00	4.02
<b>Sub Total ER</b>	<b>1279</b>	<b>960</b>			<b>35.66</b>	<b>5.37</b>	<b>30.29</b>
<b>Total IR Exch</b>	<b>4326</b>	<b>2233</b>			<b>87.06</b>	<b>17.76</b>	<b>69.31</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
25.89	1.99	27.88	0.38	23.93	1.51	-4.05	0.95	-0.95

  

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
30.72	61.15	91.86	30.29	39.02	69.31	-0.43	-22.13	-22.56

**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	0.50	31.20	1.00	30.70	92.00	68.80

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					
50.77	13.29	49.63	19.55	50.29	1.21	0.19	50.77	49.88

**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	419	02:51	405	20:10	0.0	0.0	0.0	0.0
Gorakhpur	400	430	14:35	407	21:09	0.0	0.0	56.0	0.0
Bareilly	400	429	13:19	413	19:53	0.0	0.0	41.2	0.0
Kanpur	400	427	13:23	413	19:59	0.0	0.0	63.0	0.0
Dadri	400	424	03:45	410	19:51	0.0	0.0	31.1	0.0
Ballabgarh	400	430	03:21	413	19:53	0.0	0.0	78.0	0.0
Bawana	400	426	03:42	412	19:51	0.0	0.0	31.1	0.0
Bassi	400	434	04:00	416	09:25	0.0	0.0	68.3	7.2
Hissar	400	418	03:20	402	19:20	0.0	0.0	0.0	0.0
Moga	400	420	03:22	404	18:58	0.0	0.0	0.0	0.0
Abdullapur	400	421	23:40	294	16:13	0.0	0.0	0.7	0.0
Nalagarh	400	423	23:40	411	09:26	0.0	0.0	17.5	0.0
Kishenpur	400	417	03:00	403	18:59	0.0	0.0	0.0	0.0
Wagoora	400	420	03:01	400	20:29	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	804	19:16	752	19:59	0.0	0.0	0.0	0.0
Balia	765	765	13:23	729	19:54	0.0	17.5	0.0	0.0
Moga	765	789	03:02	758	19:53	0.0	0.0	0.0	0.0
Agra	765	820	03:41	753	20:07	0.0	0.0	62.2	0.0
Bhiwani	765	801	03:21	771	19:53	0.0	0.0	0.1	0.0
Unnao	765	777	13:27	749	19:54	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	485.64	602.35	465.92	208.49	1319.68	1061.71
Pong	426.72	384.05	402.02	266.33	397.07	162.91	669.18	22.77
Tehri	829.79	740.04	757.30	100.00	818.65	982.26	2036.69	355.00
Koteshwar	612.50	598.50	608.30	4.21	NA	NA	426.00	395.00
Chamera-I	760.00	748.75	760.00	NA	NA	NA	460.95	352.36
Rihand	268.22	252.98	255.06	78.60	255.06	78.60	NA	NA
RPS	352.80	343.81	NA	NA	NA	NA	NA	NA
Jawahar Sagar	298.70	295.78	NA	NA	NA	NA	NA	NA
RSD	527.91	487.91	514.05	160.00	499.65	124.00	480.11	53.18

\* NA: Not Available

**X. System Constraints:**

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

1. Load crash of about 11000 MW due to wide spread rains in NR.

**XII. Weather Conditions For 16.06.2013 :**

1. Wide spread rains in Punjab , Haryana , HP , J & K , Uttranchal & , UP, Delhi& Patial in Rajasthan.

**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. NJPC ( 1500) MW , Kacham (1000 MW), Basapa (330MW), Dhaliganga ( 280MW), Vishnuprayg (400MW),Tanakpur(90MW) closed due high silt level.

Report for : 16.06.2013

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER