

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 26.05.2013  
Date of Reporting : 27.05.2013

### 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
36543	1785	38328	50.12	38808	444	39252	50.09	904.1	37.08

\* 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	46.46	9.81		56.27	100.61	101.54	0.93	157.81	0.00
Haryana	55.49	0.61		56.10	79.95	78.57	-1.38	134.66	0.00
Rajasthan	84.85	0.00	29.03	113.88	55.83	48.86	-6.97	162.74	0.00
Delhi	29.37			29.37	76.16	70.65	-5.51	100.02	0.18
UP	119.74	14.78	8.40	142.92	120.54	117.73	-2.81	260.65	33.77
Uttarakhand		15.64		15.64	18.62	18.93	0.31	34.57	1.43
HP		22.09		22.09	4.99	2.63	-2.36	24.72	0.00
J & K		13.40	0.00	13.40	18.70	9.92	-8.78	23.32	1.70
Chandigarh				0.00	5.14	5.63	0.49	5.63	0.00
<b>Total</b>	<b>335.91</b>	<b>76.32</b>	<b>37.43</b>	<b>449.66</b>	<b>480.55</b>	<b>454.46</b>	<b>-26.09</b>	<b>904.12</b>	<b>37.08</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	
Punjab	6193	0	-106	675	6465	0	-1	1002	32.44
Haryana	5785	0	-50	231	5633	0	-143	214	3.76
Rajasthan	6262	0	-385	206	6884	0	-346	237	5.35
Delhi	4132	0	-146	315	4329	4	-18	-206	3.00
UP	10593	1610	-68	324	11973	440	-226	2024	19.80
Uttarakhand	1526	75	62	183	1552	0	116	124	5.14
HP	879	0	-196	-939	975	0	-36	-1164	-17.19
J&K	925	100	-389	-239	750	0	-555	-320	-5.48
Chandigarh	248	0	-7	0	247	0	32	0	0.11
<b>Total</b>	<b>36543</b>	<b>1785</b>	<b>-1284</b>	<b>757</b>	<b>38808</b>	<b>444</b>	<b>-1177</b>	<b>1910</b>	<b>46.93</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 Net MU	
										UI (OG:(+ve), UG: (-ve))
A. NTPC	Singrauli STPS	2000	1730	1642	187	41.57	1732	41.13	0.43	
	Rihand I STPS	1000	915	854	924	20.37	849	20.96	-0.59	
	Rihand II STPS	1000	965	886	1034	22.05	919	22.17	-0.13	
	Rihand III STPS	500	464	430	472	10.67	445	10.72	-0.05	
	Dadri I STPS	840	807	864	832	16.63	693	17.67	-1.04	
	Dadri II STPS	980	969	952	905	19.05	794	20.84	-1.79	
	Unchahar I TPS	420	399	388	411	8.74	364	9.20	-0.46	
	Unchahar II TPS	420	397	383	338	8.45	352	8.65	-0.21	
	Unchahar III TPS	210	198	196	164	4.08	170	4.12	-0.04	
	ISTPP (Jhajjar)	1500	940	628	644	13.90	579	15.17	-1.27	
	Dadri GPS	830	798	311	295	7.01	292	7.12	-0.11	
	Anta GPS	419	380	228	193	4.87	203	5.07	-0.20	
	Auraiva GPS	663	616	148	151	2.43	101	3.50	-1.07	
	<b>Sub Total (A)</b>	<b>10782</b>	<b>9577</b>	<b>7910</b>	<b>6550</b>	<b>179.80</b>	<b>7492</b>	<b>186.33</b>	<b>-6.53</b>	
B. NPC	NAPS	440	292	320	335	6.98	291	7.01	-0.03	
	RAPS- B	440	342	429	426	9.26	386	8.21	1.05	
	RAPS- C	440	420	458	443	9.75	406	10.07	-0.32	
	<b>Sub Total (B)</b>	<b>1320</b>	<b>1054</b>	<b>1207</b>	<b>1204</b>	<b>25.98</b>	<b>1083</b>	<b>25.29</b>	<b>0.70</b>	
C. NHPC	Chamera I HPS	540	540	540	540	13.13	547	12.96	0.17	
	Chamera II HPS	300	303	304	304	7.24	302	7.29	-0.04	
	Chamera III HPS	231	231	237	232	5.45	227	5.54	-0.09	
	Bairasuil HPS	180	182	182	20	2.42	101	2.73	-0.31	
	Salal-HPS	690	641	553	656	14.70	612	15.05	-0.35	
	Tanakpur-HPS	94	86	90	82	2.04	85	2.05	-0.02	
	Uri-HPS	480	476	471	469	10.85	452	11.44	-0.58	
	Dhauliganga-HPS	280	277	283	277	6.69	279	6.65	0.04	
	Dulhasti-HPS	390	387	401	407	9.30	387	9.34	-0.04	
	Sewa-II HPS	120	113	83	101	2.20	92	2.25	-0.05	
	<b>Sub Total (C)</b>	<b>3305</b>	<b>3235</b>	<b>3144</b>	<b>3088</b>	<b>74.01</b>	<b>3084</b>	<b>75.29</b>	<b>-1.28</b>	
	D.NJPC	Natpaha Jhakri	1500	941	1622	1615	23.15	965	22.98	0.18
		<b>Sub Total (D)</b>	<b>1500</b>	<b>941</b>	<b>1622</b>	<b>1615</b>	<b>23.15</b>	<b>965</b>	<b>22.98</b>	<b>0.18</b>
E. THDC	Tehri HPS	1000	460	465	463	9.85	410	9.93	-0.08	
	Koteshwar HPS	400	280	275	81	4.61	192	4.55	0.06	
	<b>Sub Total (E)</b>	<b>1400</b>	<b>740</b>	<b>740</b>	<b>544</b>	<b>14.46</b>	<b>603</b>	<b>14.48</b>	<b>-0.02</b>	
F. BBMB	Bhakra HPS	1480	923	1229	930	22.81	950	22.16	0.65	
	Dehar HPS	990	589	825	620	14.75	615	14.13	0.63	
	Pong HPS	396	50	180	0	0.63	26	1.19	-0.56	
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1562</b>	<b>2234</b>	<b>1550</b>	<b>38.19</b>	<b>1591</b>	<b>37.48</b>	<b>0.71</b>	
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	225	233	5.44	227	5.31	0.13	
	KWHEP HPS(IPP)	1000	0	1200	1200	28.43	1185	28.51	-0.08	
	Malana Stg-II HPS	100	0	91	106	2.15	90	1.96	0.19	
	Shree Cement TPS	300	0	224	248	5.62	234	5.50	0.12	
	Budhil HPS(IPP)	70	0	34	0	0.58	24	1.65	-1.08	
	<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1774</b>	<b>1787</b>	<b>42.21</b>	<b>1759</b>	<b>42.93</b>	<b>-0.72</b>	
<b>H. Total Regional Entities (A-G)</b>	<b>22836</b>	<b>17109</b>	<b>18631</b>	<b>16338</b>	<b>397.82</b>	<b>16576</b>	<b>404.78</b>	<b>-6.96</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	1020	1260	27.26	1136
	Guru Nanak Dev TPS(Bhatinda)	440	185	228	4.61	192
	Guru Hargobind Singh TPS(L.mbt)	920	535	697	14.59	608
	Thermal (Total)	2620	1740	2185	46.46	1936
	Total Hydro	1148	345	466	9.81	409
<b>Total Punjab</b>	<b>3768</b>	<b>2085</b>	<b>2651</b>	<b>56.27</b>	<b>2345</b>	
Haryana	Panipat TPS	1367	606	655	15.06	628
	DCRTPP (Yamuna nagar)	600	515	556	12.44	518
	Faridabad GPS (NTPC)	432	213	266	4.13	172
	RGTPP (khedar) (IPP)	1200	941	1063	23.86	994
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	0	0	0.00	0
	Thermal (Total)	4944	2275	2540	55.49	2312
	Total Hydro	62	24	23	0.61	25
	<b>Total Haryana</b>	<b>5006</b>	<b>2299</b>	<b>2563</b>	<b>56.10</b>	<b>2337</b>
Rajasthan	kota TPS	1240	1072	1073	26.31	1096
	suratgarh TPS	1500	1194	931	24.60	1025
	Chabra TPS	500	206	204	5.05	210
	Dholpur GPS	330	0	0	0.18	7
	Ramgarh GPS	111	136	93	2.79	116
	RAPS A (NPC)	300	192	102	4.28	178
	Barsingsar (NLC)	250	173	189	4.41	184
	Giral LTPS	250	92	66	1.46	61
	Rajwest LTPS (IPP)	1080	589	687	15.78	658
	VSLP LTPS (IPP)	135	0	0	0.00	0
	Thermal (Total)	5696	3654	3345	84.85	3536
	Total Hydro	550	0	0	0.00	0
	Wind power	2191	1055	1430	26.79	1116
	Biomass	91	31	31	0.76	31
	Solar	201	0	0	1.49	62
	Renewable/Others (Total)	2483	1086	1461	29.03	1210
	<b>Total Rajasthan</b>	<b>8729</b>	<b>4740</b>	<b>4806</b>	<b>113.88</b>	<b>4745</b>
UP	Anpara TPS	1630	1169	1184	28.10	1171
	Obra TPS	1288	446	322	9.80	408
	Paricha TPS	1140	473	747	13.60	567
	Panki TPS	210	72	54	1.50	63
	Harduaganj TPS	665	200	383	8.50	354
	Tanda TPS (NTPC)	440	389	396	9.67	403
	Roza TPS (IPP)	1200	1004	999	23.95	998
	Anpara-C (IPP)	1200	685	685	16.35	681
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	30	357	8.27	344
	Thermal (Total)	8223	4468	5127	119.74	4989
	Vishnuparyag HPS (IPP)	400	436	436	10.47	436
	Other Hydro	527	157	235	4.31	179
	Cogeneration	981	350	350	8.40	350
	<b>Total UP</b>	<b>10131</b>	<b>5411</b>	<b>6148</b>	<b>142.92</b>	<b>5519</b>
Uttarakhand	Total Hydro	1303	691	750	15.64	652
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>691</b>	<b>750</b>	<b>15.64</b>	<b>652</b>
Delhi	Rajghat TPS	135	48	48	1.14	47
	Delhi Gas Turbine	282	182	185	4.30	179
	Pragati Gas Turbine	330	273	284	6.62	276
	Rithala GPS	95	0	0	0.00	0
	Bawana GPS	686	223	213	5.31	221
	Badarpur TPS (NTPC)	705	500	590	12.00	500
	Thermal (Total)	2232	1226	1320	29.37	1224
	<b>Total Delhi</b>	<b>2232</b>	<b>1226</b>	<b>1320</b>	<b>29.37</b>	<b>1224</b>
HP	Baspa HPS (IPP)	330	302	333	7.68	320
	Malana HPS (IPP)	86	60	101	1.99	83
	Other Hydro	589	540	511	12.42	518
	<b>Total HP</b>	<b>1005</b>	<b>902</b>	<b>945</b>	<b>22.09</b>	<b>921</b>
J & K	Baglihar HPS (IPP)	450	436	434	10.44	435
	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>562</b>	<b>13.40</b>	<b>558</b>
<b>Total State Control Area Generation</b>		<b>33130</b>	<b>17900</b>	<b>19745</b>	<b>449.66</b>	<b>18300</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>2174</b>	<b>2600</b>	<b>80.74</b>	<b>3364</b>
<b>Total Regional Availability(Gross)</b>		<b>55966</b>	<b>38705</b>	<b>38683</b>	<b>928.22</b>	<b>38239</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	9256	8336	185.84	7743
State Control Area Hydro	5368	2665	2981	76.32	2744
<b>Total Regional Hydro</b>	<b>15731</b>	<b>11921</b>	<b>11317</b>	<b>262.16</b>	<b>10487</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	-250	0	250	0.00	3.62	-3.62
Gwalior-Agra (D/C)	642	904	1192	0	21.48	0.00	21.48
Zerda-Kankroli	-259	-262	0	287	0.00	5.41	-5.41
Zerda-Bhinmal	-253	-263	0	339	0.00	5.10	-5.10
Malanpur-Auraiya	-78	-42	0	105	0.00	1.25	-1.25
Badod-Kota/Morak	-126	-111	0	126	0.00	1.43	-1.43
Mundra-Mohindergarh(HVDC)	1297	1251	1448	0	31.75	0.00	31.75
<b>Sub Total WR</b>	<b>1173</b>	<b>1227</b>			<b>53.23</b>	<b>16.81</b>	<b>36.42</b>
Pusauli Bypass	100	100	100	0	2.42	0.00	2.42
MZP- GKP (D/C)	334	404	756	0	12.00	0.00	12.00
Patna-Balia(D/C)	336	525	788	0	18.26	0.00	18.26
B'Sharif-Balia (D/C)	113	264	436	0	8.02	0.00	8.02
Pusauli-Balia	-81	-35	0	81	0.00	0.62	-0.62
Gaya-Fatehpur (765 Kv)	82	-14	181	49	1.65	0.00	1.65
Pusauli-Sahupuri	153	169	180	0	3.65	0.00	3.65
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-36	-40	0	44	0.00	1.07	-1.07
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>1001</b>	<b>1373</b>			<b>46.00</b>	<b>1.68</b>	<b>44.32</b>
<b>Total IR Exch</b>	<b>2174</b>	<b>2600</b>			<b>99.23</b>	<b>18.49</b>	<b>80.74</b>

**V(B). Inter Regional Schedule & Actual Exchanges [Import (+ve)/Export (-ve)] [Corridor wise]**

ER	ISGS/LT Schedule (MU)		Bilateral Schedule (MU)		Power Exchange Shdi (MU)		Wheeling (MU)	
	Bhutan	Total	Through ER	Through WR	Through ER	Through WR	Through ER	Through WR
33.48	1.97	35.45	1.46	2.82	5.92	-2.38	-2.73	2.73

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
40.11	51.90	92.01	44.32	36.42	80.74	4.21	-15.48	-11.27

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

<48.80	<49.0	<49.20	<49.50	<49.7	49.5 - 50.2	49.7 - 50.2	> 50.00	> 50.2
0.00	0.00	0.00	0.00	0.00	87.60	87.60	65.20	12.40

<----- 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				
50.52	17.47	49.73	0.29	50.05	0.21	0.13	50.46	49.92

**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	414	17:34	404	00:24	0.0	0.0	0.0	0.0
Gorakhpur	400	427	21:24	407	01:18	0.0	0.0	27.1	0.0
Bareilly	400	0	00:00	9999	00:00	0.0	0.0	0.0	0.0
Kanpur	400	420	19:01	400	00:29	0.0	0.0	0.0	0.0
Dadri	400	416	19:03	399	00:28	0.0	0.0	0.0	0.0
Ballabgarh	400	423	19:02	403	00:29	0.0	0.0	1.2	0.0
Bawana	400	417	08:03	401	00:08	0.0	0.0	0.0	0.0
Bassi	400	423	19:02	398	00:06	0.0	0.0	1.9	0.0
Hissar	400	409	19:02	395	00:06	0.0	0.0	0.0	0.0
Moga	400	420	19:00	407	00:06	0.0	0.0	0.0	0.0
Abdullapur	400	412	06:05	264	17:54	0.1	0.1	0.0	0.0
Nalagarh	400	417	06:04	406	00:06	0.0	0.0	0.0	0.0
Kishenpur	400	415	19:34	406	00:06	0.0	0.0	0.0	0.0
Wagoora	400	416	13:52	400	16:48	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	772	17:34	733	00:29	0.0	11.6	0.0	0.0
Moga	765	800	19:06	771	00:26	0.0	0.0	0.0	0.0
Agra	765	797	17:26	761	00:28	0.0	0.0	0.0	0.0
Bhiwani	765	791	19:06	759	00:29	0.0	0.0	0.0	0.0
Unnao	765	774	17:26	740	00:28	0.0	0.4	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 (m³/s)	Usage (m³/s)
Bhakra	513.59	445.62	477.62	407.63	468.64	248.16	686.40	610.14
Pong	426.72	384.05	399.23	203.01	401.24	244.95	302.28	252.93
Tehri	829.79	740.04	752.20	63.22	818.65	982.26	274.48	341.00
Koteshwar	612.50	598.50	606.40	NA	610.00	NA	343.00	NA
Chamera-I	760.00	748.75	758.86	NA	NA	NA	409.52	351.58
Rihand	268.22	252.98	256.03	117.50	256.80	140.00	312.77	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	508.28	NA	499.86	NA	318.73	182.56

\* NA: Not Available

**X. System Constraints:**

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

**XII. Weather Conditions For 26.05.2013 :**

1. Hot weather & Hot waves Condition prevailing in NR.

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

0.00

**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 : 26.05.2013

पारी प्रभाती अश्विनी / SHIFT CHARGE ENGINEER