

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 28.05.2013  
Date of Reporting : 29.05.2013

### 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
37577	1600	39177	50.13	38819	385	39204	50.29	926.8	33.16

\* 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	38.49	9.16		47.65	104.91	106.15	1.24	153.81	0.00
Haryana	55.39	0.62		56.01	79.65	78.97	-0.67	134.98	0.00
Rajasthan	106.11	0.00	15.52	121.64	57.73	50.83	-6.90	172.46	0.00
Delhi	30.55			30.55	78.33	75.29	-3.05	105.84	0.19
UP	124.53	14.24	8.40	147.17	122.76	117.44	-5.31	264.61	28.90
Uttarakhand		14.80		14.80	18.27	20.28	2.01	35.08	2.37
HP		20.88		20.88	3.69	3.67	-0.02	24.55	0.01
J & K		13.40	0.00	13.40	20.15	16.07	-4.09	29.46	1.70
Chandigarh				0.00	5.72	5.99	0.27	5.99	0.00
<b>Total</b>	<b>355.08</b>	<b>73.09</b>	<b>23.92</b>	<b>452.10</b>	<b>491.21</b>	<b>474.68</b>	<b>-16.53</b>	<b>926.78</b>	<b>33.16</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	6429	0	-17	1706	6080	0	113	1188	37.87
Haryana	5827	0	-294	245	5590	0	167	195	4.21
Rajasthan	6557	0	-357	211	7236	0	-416	167	4.40
Delhi	4409	0	-49	-138	4360	5	-115	-170	2.90
UP	10348	1360	-532	579	11947	380	-493	2039	21.76
Uttarakhand	1530	140	31	283	1522	0	166	176	4.89
HP	853	0	-162	-1110	899	0	11	-1236	-26.26
J&K	1393	100	-106	-239	958	0	-338	-320	-6.36
Chandigarh	232	0	-30	0	227	0	27	0	0.40
<b>Total</b>	<b>37577</b>	<b>1600</b>	<b>-1516</b>	<b>1537</b>	<b>38819</b>	<b>385</b>	<b>-876</b>	<b>2039</b>	<b>43.82</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
A. NTPC	Singrauli STPS	2000	1873	1874	2058	44.45	1852	44.46	-0.01
	Rihand I STPS	1000	915	965	967	20.39	850	21.00	-0.61
	Rihand II STPS	1000	965	959	987	21.60	900	22.11	-0.51
	Rihand III STPS	500	471	495	458	10.64	443	10.78	-0.14
	Dadri I STPS	840	807	722	734	15.44	643	16.63	-1.19
	Dadri II STPS	980	969	827	815	20.01	834	21.06	-1.06
	Unchahar I TPS	420	399	370	344	8.03	334	8.54	-0.52
	Unchahar II TPS	420	397	335	324	7.40	308	7.48	-0.08
	Unchahar III TPS	210	198	178	158	3.69	154	3.71	-0.03
	ISTPP (Jhajjar)	1500	847	340	614	12.07	503	13.17	-1.11
	Dadri GPS	830	783	342	253	6.82	284	6.99	-0.17
	Anta GPS	419	382	238	210	5.09	212	5.16	-0.07
	Auraiva GPS	663	617	139	139	3.12	140	2.94	0.17
	<b>Sub Total (A)</b>	<b>10782</b>	<b>9621</b>	<b>7784</b>	<b>8061</b>	<b>178.73</b>	<b>7447</b>	<b>184.06</b>	<b>-5.33</b>
B. NPC	NAPS	440	291	332	335	7.05	294	6.98	0.07
	RAPS- B	440	386	436	438	9.35	390	9.26	0.09
	RAPS- C	440	395	461	462	9.84	410	9.48	0.36
	<b>Sub Total (B)</b>	<b>1320</b>	<b>1072</b>	<b>1229</b>	<b>1235</b>	<b>26.24</b>	<b>1093</b>	<b>25.73</b>	<b>0.51</b>
C. NHPC	Chamera I HPS	540	540	540	540	13.11	546	12.96	0.15
	Chamera II HPS	300	303	310	303	7.33	305	7.30	0.03
	Chamera III HPS	231	231	232	234	5.54	231	5.47	0.07
	Bairasuil HPS	180	182	182	40	2.98	124	3.23	-0.24
	Salal-HPS	690	661	654	538	15.63	651	15.84	-0.21
	Tanakpur-HPS	94	83	90	73	1.95	81	2.00	-0.05
	Uri-HPS	480	476	473	472	11.40	475	11.43	-0.03
	Dhauliganga-HPS	280	280	282	277	6.70	279	6.75	-0.05
	Dulhasti-HPS	390	388	400	403	9.08	378	9.28	-0.20
	Sewa-II HPS	120	119	120	51	1.74	73	1.90	-0.16
	<b>Sub Total (C)</b>	<b>3305</b>	<b>3263</b>	<b>3283</b>	<b>2931</b>	<b>75.46</b>	<b>3144</b>	<b>76.16</b>	<b>-0.70</b>
	D. NJPC	Nathpa Jhakri	1500	1605	1630	1625	38.75	1614	38.52
<b>Sub Total (D)</b>		<b>1500</b>	<b>1605</b>	<b>1630</b>	<b>1625</b>	<b>38.75</b>	<b>1614</b>	<b>38.52</b>	<b>0.22</b>
E. THDC	Tehri HPS	1000	455	465	449	10.30	429	10.50	-0.20
	Koteshwar HPS	400	280	283	86	4.57	190	4.60	-0.03
	<b>Sub Total (E)</b>	<b>1400</b>	<b>735</b>	<b>748</b>	<b>535</b>	<b>14.87</b>	<b>620</b>	<b>15.10</b>	<b>-0.23</b>
F. BBMB	Bhakra HPS	1480	929	1232	768	22.77	949	22.30	0.47
	Dehar HPS	990	594	825	660	15.05	627	14.27	0.79
	Pong HPS	396	58	236	0	1.48	62	1.40	0.08
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1582</b>	<b>2293</b>	<b>1428</b>	<b>39.30</b>	<b>1638</b>	<b>37.97</b>	<b>1.34</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	547	396	3.04	127	4.61	-1.58
	KWHEP HPS(IPP)	1000	0	1200	1200	28.17	1174	28.51	-0.34
	Malana Stg-II HPS	100	0	80	90	1.48	62	1.34	0.14
	Shree Cement TPS	300	0	223	231	5.62	234	5.69	-0.07
	Budhil HPS(IPP)	70	0	34	34	0.84	35	0.82	0.02
	<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>2084</b>	<b>1951</b>	<b>39.14</b>	<b>1631</b>	<b>40.97</b>	<b>-1.83</b>
<b>H. Total Regional Entities (A-G)</b>	<b>22836</b>	<b>17878</b>	<b>19051</b>	<b>17766</b>	<b>412.49</b>	<b>17187</b>	<b>418.50</b>	<b>-6.02</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	850	850	21.13	880
	Guru Nanak Dev TPS(Bhatinda)	440	185	185	4.25	177
	Guru Hargobind Singh TPS(L.mbt)	920	553	575	13.11	546
	Thermal (Total)	2620	1588	1610	38.49	1604
	Total Hydro	1148	375	375	9.16	382
	<b>Total Punjab</b>	<b>3768</b>	<b>1963</b>	<b>1985</b>	<b>47.65</b>	<b>1986</b>
Haryana	Panipat TPS	1367	648	606	14.88	620
	DCRTPP (Yamuna nagar)	600	560	505	12.44	518
	Faridabad GPS (NTPC)	432	176	185	3.96	165
	RGTPP (khedar) (IPP)	1200	1115	929	24.11	1005
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	0	0	0.00	0
	Thermal (Total)	4944	2499	2225	55.39	2308
	Total Hydro	62	30	0	0.62	26
	<b>Total Haryana</b>	<b>5006</b>	<b>2529</b>	<b>2225</b>	<b>56.01</b>	<b>2334</b>
	Rajasthan	kota TPS	1240	1068	1055	25.76
suratgarh TPS		1500	1144	1117	27.01	1125
Chabra TPS		500	203	198	4.74	197
Dholpur GPS		330	126	126	3.03	126
Ramgarh GPS		111	48	92	2.29	95
RAPS A (NPC)		300	192	192	4.24	177
Barsingsar (NLC)		250	206	178	4.86	203
Giral LTPS		250	96	45	2.18	91
Rajwest LTPS (IPP)		1080	785	687	18.27	761
VSLP LTPS (IPP)		135	595	585	13.74	573
Thermal (Total)		5696	4463	4275	106.11	4421
Total Hydro		550	0	0	0.00	0
Wind power		2191	17	1077	13.06	544
Biomass		91	35	35	0.83	35
Solar		201	0	0	1.63	68
Renewable/Others (Total)		2483	52	1112	15.52	647
<b>Total Rajasthan</b>		<b>8729</b>	<b>4515</b>	<b>5387</b>	<b>121.64</b>	<b>5068</b>
UP	Anpara TPS	1630	1151	1101	27.10	1129
	Obra TPS	1288	482	491	11.60	483
	Paricha TPS	1140	720	762	17.00	708
	Panki TPS	210	77	149	2.10	88
	Harduaganj TPS	665	404	411	9.40	392
	Tanda TPS (NTPC)	440	400	398	9.73	405
	Roza TPS (IPP)	1200	999	995	23.13	964
	Anpara-C (IPP)	1200	684	689	16.47	686
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	357	370	8.01	334
	Thermal (Total)	8223	5274	5366	124.53	5189
	Vishnuparyag HPS (IPP)	400	436	436	10.46	436
	Other Hydro	527	138	171	3.78	157
	Cogeneration	981	350	350	8.40	350
	<b>Total UP</b>	<b>10131</b>	<b>6198</b>	<b>6323</b>	<b>147.17</b>	<b>5696</b>
Uttarakhand	Total Hydro	1303	627	633	14.80	617
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>627</b>	<b>633</b>	<b>14.80</b>	<b>617</b>
Delhi	Rajghat TPS	135	50	49	1.16	48
	Delhi Gas Turbine	282	173	178	4.34	181
	Pragati Gas Turbine	330	281	288	6.71	280
	Rithala GPS	95	0	0	0.00	0
	Bawana GPS	686	216	219	5.28	220
	Badarpur TPS (NTPC)	705	595	565	13.07	544
	Thermal (Total)	2232	1315	1299	30.55	1273
	<b>Total Delhi</b>	<b>2232</b>	<b>1315</b>	<b>1299</b>	<b>30.55</b>	<b>1273</b>
	HP	Baspa HPS (IPP)	330	303	303	7.64
Malana HPS (IPP)		86	76	73	1.40	58
Other Hydro		589	447	540	11.85	494
<b>Total HP</b>		<b>1005</b>	<b>826</b>	<b>916</b>	<b>20.88</b>	<b>870</b>
J & K	Baglihar HPS (IPP)	450	436	436	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>564</b>	<b>13.40</b>	<b>558</b>
<b>Total State Control Area Generation</b>		<b>33130</b>	<b>18519</b>	<b>19332</b>	<b>452.10</b>	<b>18402</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>3610</b>	<b>3058</b>	<b>79.84</b>	<b>3326</b>
<b>Total Regional Availability(Gross)</b>		<b>55966</b>	<b>41180</b>	<b>40156</b>	<b>944.42</b>	<b>38915</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	9781	8205	201.06	8377
State Control Area Hydro	5368	2542	2659	73.09	2610
<b>Total Regional Hydro</b>	<b>15731</b>	<b>12323</b>	<b>10864</b>	<b>274.15</b>	<b>10987</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	-300	-50	0	400	0.00	5.36	-5.36
Gwalior-Agra (D/C)	1036	1040	1564	0	24.80	0.00	24.80
Zerda-Kankroli	-134	-373	0	348	0.00	5.17	-5.17
Zerda-Bhinmal	243	-243	19	378	0.00	4.09	-4.09
Malanpur-Auraiya	-63	-53	0	84	0.00	1.21	-1.21
Badod-Kota/Morak	-110	-112	0	158	0.00	2.33	-2.33
Mundra-Mohindergarh(HVDC)	1447	1154	1450	0	30.57	0.00	30.57
<b>Sub Total WR</b>	<b>2119</b>	<b>1363</b>			<b>55.37</b>	<b>18.16</b>	<b>37.21</b>
Pusauli Bypass	100	100	200	0	2.45	0.00	2.45
MZP- GKP (D/C)	594	624	804	0	15.37	0.00	15.37
Patna-Balia(D/C)	489	520	626	0	13.56	0.00	13.56
B'Sharif-Balia (D/C)	230	245	476	0	6.95	0.00	6.95
Pusauli-Balia	-43	-43	0	73	0.00	0.57	-0.57
Gaya-Fatehpur (765 Kv)	0	126	201	0	2.15	0.00	2.15
Pusauli-Sahupuri	157	163	170	0	3.78	0.00	3.78
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>1491</b>	<b>1695</b>			<b>44.26</b>	<b>1.64</b>	<b>42.63</b>
<b>Total IR Exch</b>	<b>3610</b>	<b>3058</b>			<b>99.63</b>	<b>19.80</b>	<b>79.84</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
33.16	1.69	34.85	-2.57	6.45	3.66	-1.37	-0.93	0.93

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
35.01	53.89	88.90	42.63	37.21	79.84	7.62	-16.68	-9.07

**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	78.50	78.50	77.70	21.50

<----- 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	6.05	49.80	12.32	50.10	0.25	0.12	50.51	49.96

**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	413	19:03	402	15:50	0.0	0.0	0.0	0.0
Gorakhpur	400	428	06:31	400	14:59	0.0	0.0	23.3	0.0
Bareilly	400	416	06:00	395	16:00	0.0	0.0	0.0	0.0
Kanpur	400	419	06:04	398	20:03	0.0	0.0	0.0	0.0
Dadri	400	415	06:03	395	14:50	0.0	0.0	0.0	0.0
Balabhgarh	400	420	06:04	398	14:37	0.0	0.0	0.0	0.0
Bawana	400	417	06:07	398	14:45	0.0	0.0	0.0	0.0
Bassi	400	423	19:03	400	12:22	0.0	0.0	0.7	0.0
Hissar	400	410	19:03	393	14:50	0.0	0.0	0.0	0.0
Moga	400	417	04:03	388	19:44	0.0	2.4	0.0	0.0
Abdullapur	400	411	06:05	397	14:44	0.0	0.0	0.0	0.0
Nalagarh	400	415	04:09	399	15:23	0.0	0.0	0.0	0.0
Kishenpur	400	414	04:09	401	12:12	0.0	0.0	0.0	0.0
Wagoora	400	412	23:55	396	09:42	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	776	08:02	723	12:55	1.9	34.1	0.0	0.0
Balia	765	775	19:04	720	12:33	3.5	49.5	0.0	0.0
Moga	765	796	19:03	765	15:46	0.0	0.0	0.0	0.0
Agra	765	801	19:03	748	20:03	0.0	0.0	0.0	0.0
Bhiwani	765	789	19:04	754	14:47	0.0	0.0	0.0	0.0
Unnao	765	773	06:04	736	14:36	0.0	14.3	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	478.58	427.60	468.74	248.16	1282.76	818.53
Pong	426.72	384.05	399.56	209.93	400.82	237.89	268.81	14.16
Tehri	829.79	740.04	751.90	63.00	818.65	982.26	287.27	336.00
Koteshwar	612.50	598.50	NA	NA	NA	NA	NA	NA
Chamera-I	760.00	748.75	758.86	NA	NA	NA	409.52	351.58
Rihand	268.22	252.98	255.61	112.60	256.43	133.70	312.77	NA
RPS	352.80	343.81	347.37	NA	NA	NA	NA	16.71
Jawahar Sagar	298.70	295.78	297.94	NA	NA	NA	NA	37.38
RSD	527.91	487.91	508.69	NA	508.48	NA	284.33	157.38

\* NA: Not Available

**X. System Constraints:**

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

**XII. Weather Conditions For 28.05.2013 :**

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 : 28.05.2013

पारी प्रभाती अश्विन्ता / SHIFT CHARGE ENGINEER