

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 27.04.2013  
Date of Reporting : 28.04.2013

### I. Regional Availability/Demand:

Demand Met	Evening Peak (20:00 Hrs) MW			Demand Met	Off Peak (03:00 Hrs) MW			Day Energy (Net MU)	
	Shortage	Requirement	Freq* (Hz)		Shortage	Requirement	Freq* (Hz)	Demand Met	Shortage
34058	1600	35658	50.14	30931	1523	32454	50.00	747.7	47.87

\* 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	41.70	8.17		49.87	53.04	51.88	-1.16	101.75	0.07
Haryana	55.22	0.71		55.93	51.69	49.12	-2.57	105.05	0.00
Rajasthan	83.92	0.00	7.37	91.29	54.12	53.64	-0.47	144.94	3.66
Delhi	29.62			29.62	51.27	49.54	-1.73	79.16	0.13
UP	119.91	5.44	12.00	137.35	91.42	88.28	-3.14	225.63	42.17
Uttarakhand		13.97		13.97	20.24	19.59	-0.64	33.56	0.14
HP		12.13		12.13	13.16	11.69	-1.47	23.81	0.00
J & K		11.30	0.00	11.30	21.60	18.30	-3.30	29.61	1.70
Chandigarh				0.00	4.62	4.19	-0.43	4.19	0.00
<b>Total</b>	<b>330.37</b>	<b>51.72</b>	<b>19.37</b>	<b>401.45</b>	<b>361.14</b>	<b>346.22</b>	<b>-14.92</b>	<b>747.68</b>	<b>47.87</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	4835	0	-242	122	4326	0	21	238	4.60
Haryana	5230	0	-350	155	4272	0	44	-322	-7.57
Rajasthan	6257	0	-469	736	5959	118	107	219	7.85
Delhi	3538	0	-314	-329	2960	0	-169	-824	-15.28
UP	9787	1500	169	-24	10184	1405	-24	1301	7.69
Uttarakhand	1637	0	2	540	1250	0	-98	446	11.25
HP	1040	0	-116	-634	825	0	-93	-24	-5.67
J&K	1527	100	-50	-145	1019	0	-195	-62	-2.13
Chandigarh	206	0	-21	0	136	0	-21	15	0.55
<b>Total</b>	<b>34058</b>	<b>1600</b>	<b>-1390</b>	<b>420</b>	<b>30931</b>	<b>1523</b>	<b>-428</b>	<b>988</b>	<b>1.29</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	1250	1368	1362	30.23	1260	30.00	0.23
	Rihand I STPS	1000	915	991	992	21.97	915	21.96	0.01
	Rihand II STPS	1000	970	1039	1042	23.24	968	23.28	-0.04
	Rihand III STPS	500	423	458	472	10.20	425	10.16	0.04
	Dadri I STPS	840	669	642	631	14.38	599	15.47	-1.08
	Dadri II STPS	980	729	845	684	16.13	672	16.79	-0.66
	Unchahar I TPS	420	395	432	413	9.12	380	9.11	0.01
	Unchahar II TPS	420	398	441	441	9.05	377	8.86	0.20
	Unchahar III TPS	210	0	0	0	0.00	0	0.00	0.00
	ISTPP (Jhajjar)	1500	1410	866	729	16.62	693	16.84	-0.22
	Dadri GPS	830	795	388	400	8.89	370	9.25	-0.36
	Anta GPS	419	392	244	253	5.70	237	5.85	-0.15
	Auraiva GPS	663	624	310	310	7.15	298	7.18	-0.04
	<b>Sub Total (A)</b>	<b>10782</b>	<b>8970</b>	<b>8024</b>	<b>7729</b>	<b>172.67</b>	<b>7195</b>	<b>174.74</b>	<b>-2.07</b>
B. NPC	NAPS	440	298	333	339	7.15	298	7.15	0.00
	RAPS- B	440	220	224	227	4.71	196	5.28	-0.57
	RAPS- C	440	430	466	470	10.04	418	10.32	-0.28
	<b>Sub Total (B)</b>	<b>1320</b>	<b>948</b>	<b>1023</b>	<b>1036</b>	<b>21.90</b>	<b>913</b>	<b>22.75</b>	<b>-0.85</b>
C. NHPC	Chamera I HPS	540	360	360	0	6.33	264	6.20	0.13
	Chamera II HPS	300	310	308	25	4.62	192	4.35	0.27
	Chamera III HPS	231	231	222	76	2.99	124	3.03	-0.04
	Bairasuil HPS	180	182	140	140	2.24	94	1.95	0.30
	Salal-HPS	690	345	570	342	8.42	351	8.28	0.14
	Tanakpur-HPS	94	37	52	38	0.98	41	0.90	0.08
	Uri-HPS	480	480	480	480	11.60	483	11.52	0.08
	Dhauliganga-HPS	280	259	280	0	2.83	118	2.80	0.02
	Dulhasti-HPS	390	387	403	260	8.34	347	8.12	0.22
	Sewa-II HPS	120	119	124	80	2.49	104	2.51	-0.01
	<b>Sub Total (C)</b>	<b>3305</b>	<b>2710</b>	<b>2939</b>	<b>1441</b>	<b>50.84</b>	<b>2118</b>	<b>49.66</b>	<b>1.18</b>
D.NJPC	Natpba Jhakri	1500	1605	1558	492	22.43	934	23.15	-0.72
<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>1558</b>	<b>492</b>	<b>22.43</b>	<b>934</b>	<b>23.15</b>	<b>-0.72</b>	
E. THDC	Tehri HPS	1000	213	348	300	4.77	199	4.75	0.02
	Koteshwar HPS	400	230	231	0	1.80	75	1.80	0.00
	<b>Sub Total (E)</b>	<b>1400</b>	<b>443</b>	<b>579</b>	<b>300</b>	<b>6.58</b>	<b>274</b>	<b>6.55</b>	<b>0.03</b>
F. BBMB	Bhakra HPS	1480	619	983	496	15.04	627	14.86	0.18
	Dehar HPS	990	378	660	280	9.29	387	9.07	0.22
	Pong HPS	396	38	180	0	0.85	35	0.25	0.60
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1035</b>	<b>1823</b>	<b>776</b>	<b>25.18</b>	<b>1049</b>	<b>24.18</b>	<b>1.00</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	84	101	1.41	59	1.55	-0.14
	KWHEP HPS(IPP)	1000	0	781	700	12.55	523	13.20	-0.65
	Malana Stg-II HPS	100	0	113	0	0.52	22	0.50	0.02
	Shree Cement TPS	300	0	263	267	6.38	266	6.61	-0.22
	Budhil HPS(IPP)	70	0	69	35	0.66	28	0.65	0.01
	<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1310</b>	<b>1103</b>	<b>21.52</b>	<b>897</b>	<b>22.51</b>	<b>-0.99</b>
<b>H. Total Regional Entities (A-G)</b>	<b>22836</b>	<b>15711</b>	<b>17256</b>	<b>12877</b>	<b>321.11</b>	<b>13380</b>	<b>323.54</b>	<b>-2.43</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	895	690	19.69	820
	Guru Nanak Dev TPS(Bhatinda)	440	95	295	4.29	179
	Guru Hargobind Singh TPS(L.mbt)	920	907	889	17.73	739
	Thermal (Total)	2620	1897	1874	41.70	1738
	Total Hydro	1148	412	321	8.17	340
	<b>Total Punjab</b>	<b>3768</b>	<b>2309</b>	<b>2195</b>	<b>49.87</b>	<b>2078</b>
<b>Haryana</b>	Panipat TPS	1367	661	669	15.89	662
	DCRTPP (Yamuna nagar)	600	560	562	12.99	541
	Faridabad GPS (NTPC)	432	184	194	4.42	184
	RGTPP (kheadar) (IPP)	1200	493	486	12.33	514
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	385	389	9.59	400
	Thermal (Total)	4944	2283	2300	55.22	2301
	Total Hydro	62	28	26	0.71	29
	<b>Total Haryana</b>	<b>5006</b>	<b>2311</b>	<b>2326</b>	<b>55.93</b>	<b>2330</b>
	<b>Rajasthan</b>	kota TPS	1240	913	1177	25.71
suratgarh TPS		1500	956	1102	25.87	1078
Chabra TPS		500	448	450	10.61	442
Dholpur GPS		330	136	132	3.28	137
Ramgarh GPS		111	111	109	2.74	114
RAPS A (NPC)		300	0	0	0.00	0
Barsingsar (NLC)		250	109	112	2.48	103
Giral LTPS		250	58	58	0.86	36
Rajwest LTPS (IPP)		1080	466	634	12.36	515
VSLP LTPS (IPP)		135	0	0	0.00	0
Thermal (Total)		5696	3197	3774	83.92	3497
Total Hydro		550	0	0	0.00	0
Wind power		2191	729	135	6.03	251
Biomass		91	32	32	0.77	32
Solar		201	0	0	0.57	24
Renewable/Others (Total)		2483	761	167	7.37	307
<b>Total Rajasthan</b>		<b>8729</b>	<b>3958</b>	<b>3941</b>	<b>91.29</b>	<b>3804</b>
<b>UP</b>	Anpara TPS	1630	1305	1226	27.70	1154
	Obra TPS	1382	558	558	12.20	508
	Paricha TPS	890	834	850	18.10	754
	Panki TPS	210	50	145	2.00	83
	Harduaganj TPS	665	310	302	6.50	271
	Tanda TPS (NTPC)	440	398	399	9.80	408
	Roza TPS (IPP)	1200	536	540	12.88	537
	Anpara-C (IPP)	1200	1008	833	21.63	901
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	315	405	9.10	379
	Thermal (Total)	8067	5314	5258	119.91	4996
	Vishnuparyag HPS (IPP)	400	159	149	3.52	147
	Other Hydro	527	115	85	1.93	80
	Cogeneration	981	500	500	12.00	500
	<b>Total UP</b>	<b>9975</b>	<b>6088</b>	<b>5992</b>	<b>137.35</b>	<b>5576</b>
<b>Uttarakhand</b>	Total Hydro	1303	606	560	13.97	582
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>606</b>	<b>560</b>	<b>13.97</b>	<b>582</b>
<b>Delhi</b>	Rajghat TPS	135	102	97	2.41	101
	Delhi Gas Turbine	282	222	190	5.31	221
	Pragati Gas Turbine	330	263	298	7.04	293
	Rithala GPS	108	0	0	0.00	0
	Bawana GPS	677	88	24	1.73	72
	Badarpur TPS (NTPC)	705	560	625	13.13	547
	Thermal (Total)	2237	1235	1234	29.62	1234
	<b>Total Delhi</b>	<b>2237</b>	<b>1235</b>	<b>1234</b>	<b>29.62</b>	<b>1234</b>
	<b>HP</b>	Baspa HPS (IPP)	330	60	90	2.19
Malana HPS (IPP)		86	86	8	0.55	23
Other Hydro		589	389	405	9.39	391
<b>Total HP</b>		<b>1005</b>	<b>535</b>	<b>503</b>	<b>12.13</b>	<b>505</b>
<b>J &amp; K</b>	Baglihar HPS (IPP)	450	400	398	9.56	398
	Other Hydro	323	70	115	1.74	73
	Gas/Diesel/Others	183	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>956</b>	<b>470</b>	<b>513</b>	<b>11.30</b>	<b>471</b>
<b>Total State Control Area Generation</b>		<b>32979</b>	<b>17512</b>	<b>17264</b>	<b>401.45</b>	<b>16581</b>
<b>J. Net Inter Regional Exchange</b> [Import (+ve)/Export (-ve)]			<b>2059</b>	<b>2932</b>	<b>49.76</b>	<b>2073</b>
<b>Total Regional Availability(Gross)</b>		<b>55815</b>	<b>36827</b>	<b>33073</b>	<b>772.33</b>	<b>32034</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	7877	3810	119.50	4979
State Control Area Hydro	5368	2166	2008	51.72	2008
<b>Total Regional Hydro</b>	<b>15731</b>	<b>10043</b>	<b>5818</b>	<b>171.21</b>	<b>6987</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	-150	-250	0	250	0.00	4.09	-4.09
Gwalior-Agra (D/C)	436	1158	1176	0	14.98	0.00	14.98
Zerda-Kankroli	-92	-35	0	272	0.00	3.15	-3.15
Zerda-Bhinmal	-116	10	54	250	0.00	1.89	-1.89
Malanpur-Auraiya	-171	-45	0	171	0.00	2.36	-2.36
Badod-Kota/Morak	-65	-46	0	173	0.00	2.42	-2.42
Mundra-Mohindergarh(HVDC)	1264	1178	1266	0	29.58	0.00	29.58
<b>Sub Total WR</b>	<b>1106</b>	<b>1970</b>			<b>44.56</b>	<b>13.91</b>	<b>30.66</b>
Pusauli Bypass	-150	-150	0	150	0.00	3.66	-3.66
MZP- GKP (D/C)	380	242	406	0	5.77	0.00	5.77
Patna-Balia(D/C)	411	476	476	0	9.58	0.00	9.58
B'Sharif-Balia (D/C)	168	236	265	0	3.86	0.00	3.86
Pusauli-Balia	-18	12	16	58	0.00	0.21	-0.21
Gaya-Fatehpur (765 Kv)	42	41	141	28	1.44	0.00	1.44
Pusauli-Sahupuri	156	145	165	0	3.39	0.00	3.39
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>953</b>	<b>962</b>			<b>24.03</b>	<b>4.93</b>	<b>19.10</b>
<b>Total IR Exch</b>	<b>2059</b>	<b>2932</b>			<b>68.59</b>	<b>18.84</b>	<b>49.76</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
30.26	0.52	30.78	-8.97	-9.83	-0.07	0.19	-2.65	2.65

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
19.08	31.70	50.78	19.10	30.66	49.76	0.02	-1.04	-1.02

**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	0.80	98.05	97.25	72.64	1.95

<----- Frequency (Hz) ----->				Average Frequency	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX (Hz)	MIN (Hz)
50.46	18.18	49.70	22.49	50.06	0.15	0.08	50.28	49.90

**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	412	0:00	405	19:17	0.0	0.0	0.0	0.0
Gorakhpur	400	425	15:16	409	20:29	0.0	0.0	9.2	0.0
Bareilly	400	423	7:04	403	11:14	0.0	0.0	0.8	0.0
Kanpur	400	419	8:04	400	11:26	0.0	0.0	0.0	0.0
Dadri	400	421	4:03	405	11:15	0.0	0.0	0.5	0.0
Balabhgarh	400	426	4:03	406	11:08	0.0	0.0	26.1	0.0
Bawana	400	421	3:52	407	11:14	0.0	0.0	0.5	0.0
Bassi	400	426	3:53	405	11:07	0.0	0.0	19.7	0.0
Hissar	400	412	13:15	397	19:41	0.0	0.0	0.0	0.0
Moga	400	417	4:03	401	19:40	0.0	0.0	0.0	0.0
Abdullapur	400	420	17:00	405	19:28	0.0	0.0	0.0	0.0
Nalagarh	400	423	17:01	407	9:27	0.0	0.0	7.3	0.0
Kishenpur	400	421	3:37	395	19:41	0.0	0.0	0.5	0.0
Wagoora	400	418	3:51	384	19:37	0.0	3.9	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	756	12:40	735	18:06	0.0	0.0	0.0	0.0
Balia	765	762	12:53	732	19:42	0.0	0.0	0.0	0.0
Moga	765	783	4:01	752	19:42	0.0	0.0	0.0	0.0
Agra	765	781	18:02	745	5:42	0.0	0.0	0.0	0.0
Bhiwani	765	793	13:29	762	5:40	0.0	0.0	0.0	0.0
Unnao	765	758	18:17	730	5:42	0.0	37.1	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	479.80	454.47	474.67	345.61	430.67	345.61
Pong	426.72	384.05	400.36	230.85	403.34	296.79	57.03	296.79
Tehri	829.79	740.04	763.10	146.00	818.65	982.26	95.83	144.00
Koteshwar	612.50	598.50	599.10	0.30	610.68	4.86	14.00	123.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	164.91	186.02
Rihand	268.22	252.98	257.10	162.00	258.32	216.70	NA	NA
RPS	352.80	343.81	346.02	NA	348.41	NA	NA	NA
Jawahar Sagar	298.70	295.78	298.16	NA	298.25	NA	NA	NA
RSD	527.91	487.91	507.32	NA	497.01	NA	152.34	29.90

\* NA: Not Available

**X. System Constraints:**

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

**XII. Weather Conditions For 27.04.2013 :**

1.Normal weather.

**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 : 27.04.2013

पारी प्रभाती अश्विन्ता / SHIFT CHARGE ENGINEER