

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 28.04.2013  
Date of Reporting : 29.04.2013

### 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
33487	1280	34767	50.15	30743	2077	32820	50.04	736.1	40.43

\* 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	40.89	8.13		49.02	48.93	49.22	0.29	98.24	0.00
Haryana	53.85	0.67		54.52	48.80	47.13	-1.66	101.65	0.00
Rajasthan	77.79	0.00	8.92	86.72	57.19	56.80	-0.39	143.51	3.01
Delhi	31.04			31.04	47.96	43.50	-4.47	74.54	0.00
UP	127.76	5.47	12.00	145.24	89.76	85.85	-3.91	231.09	35.72
Uttarakhand		12.66		12.66	19.48	17.90	-1.58	30.57	0.00
HP		11.37		11.37	11.87	10.77	-1.11	22.14	0.00
J & K		11.30	0.00	11.30	21.27	19.39	-1.88	30.70	1.70
Chandigarh				0.00	4.16	3.72	-0.44	3.72	0.00
<b>Total</b>	<b>331.33</b>	<b>49.61</b>	<b>20.92</b>	<b>401.86</b>	<b>349.42</b>	<b>334.28</b>	<b>-15.14</b>	<b>736.14</b>	<b>40.43</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	4891	0	81	135	4377	0	-87	269	4.08
Haryana	5153	0	-58	-87	4313	0	88	-391	-9.05
Rajasthan	6292	0	-382	669	5391	315	81	276	10.90
Delhi	3384	0	-169	-423	2944	0	-213	-591	-12.08
UP	9738	1180	-378	-49	10455	1762	112	1178	6.41
Uttarakhand	1522	0	-15	486	1315	0	27	446	10.62
HP	944	0	-271	-364	799	0	54	-99	-6.01
J&K	1373	100	-38	-150	1015	0	-67	-66	-2.24
Chandigarh	190	0	-9	-20	136	0	-5	15	0.26
<b>Total</b>	<b>33487</b>	<b>1280</b>	<b>-1238</b>	<b>198</b>	<b>30743</b>	<b>2077</b>	<b>-10</b>	<b>1036</b>	<b>2.89</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	1361	1362	29.91	1246	29.55	0.36
	Rihand I STPS	1000	915	966	996	21.14	881	21.15	-0.01
	Rihand II STPS	1000	970	1038	1042	22.26	928	22.17	0.09
	Rihand III STPS	500	469	503	508	11.29	470	11.21	0.08
	Dadri I STPS	840	650	636	627	13.32	555	13.52	-0.20
	Dadri II STPS	980	703	705	698	15.41	642	15.34	0.07
	Unchahar I TPS	420	394	379	434	8.39	350	8.48	-0.08
	Unchahar II TPS	420	391	332	441	8.13	339	7.96	0.17
	Unchahar III TPS	210	0	0	0	0.00	0	0.00	0.00
	ISTPP (Jhajjar)	1500	1410	643	729	15.58	649	15.49	0.09
	Dadri GPS	830	795	371	397	8.78	366	8.97	-0.19
	Anta GPS	419	392	244	253	5.59	233	5.73	-0.13
	Auraiva GPS	663	626	292	309	7.01	292	7.06	-0.05
	<b>Sub Total (A)</b>	<b>10782</b>	<b>8963</b>	<b>7470</b>	<b>7996</b>	<b>166.81</b>	<b>6951</b>	<b>166.61</b>	<b>0.20</b>
	B. NPC	NAPS	440	298	334	339	7.14	297	7.15
RAPS- B		440	197	225	225	4.66	194	4.73	-0.07
RAPS- C		440	430	466	468	10.03	418	10.32	-0.29
<b>Sub Total (B)</b>		<b>1320</b>	<b>925</b>	<b>1025</b>	<b>1032</b>	<b>21.82</b>	<b>909</b>	<b>22.20</b>	<b>-0.38</b>
C. NHPC	Chamera I HPS	540	360	360	0	6.65	277	6.65	-0.01
	Chamera II HPS	300	310	299	11	3.65	152	4.19	-0.55
	Chamera III HPS	231	231	212	0	2.38	99	2.58	-0.20
	Bairasuil HPS	180	182	182	20	2.16	90	2.22	-0.06
	Salal-HPS	690	389	560	340	8.65	361	9.33	-0.68
	Tanakpur-HPS	94	42	51	36	0.93	39	0.95	-0.03
	Uri-HPS	480	480	479	479	11.59	483	11.56	0.03
	Dhauliganga-HPS	280	280	280	0	2.83	118	3.11	-0.28
	Dulhasti-HPS	390	387	399	134	6.76	282	7.14	-0.38
	Sewa-II HPS	120	119	117	0	1.98	82	1.99	-0.02
	<b>Sub Total (C)</b>	<b>3305</b>	<b>2779</b>	<b>2939</b>	<b>1020</b>	<b>47.56</b>	<b>1982</b>	<b>49.73</b>	<b>-2.17</b>
D.NJPC	Natpaha Jhakri	1500	1605	1581	269	18.76	782	19.00	-0.24
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>1581</b>	<b>269</b>	<b>18.76</b>	<b>782</b>	<b>19.00</b>	<b>-0.24</b>
E. THDC	Tehri HPS	1000	298	340	302	4.73	197	4.75	-0.02
	Koteshwar HPS	400	230	232	0	1.88	79	1.90	-0.02
	<b>Sub Total (E)</b>	<b>1400</b>	<b>528</b>	<b>572</b>	<b>302</b>	<b>6.61</b>	<b>275</b>	<b>6.65</b>	<b>-0.04</b>
F. BBMB	Bhakra HPS	1480	677	1132	522	16.33	680	16.26	0.07
	Dehar HPS	990	367	660	280	8.53	355	8.81	-0.28
	Pong HPS	396	9	0	0	0.19	8	0.25	-0.06
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1053</b>	<b>1792</b>	<b>802</b>	<b>25.05</b>	<b>1044</b>	<b>25.31</b>	<b>-0.26</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	53	31	0.86	36	0.83	0.03
	KWHEP HPS(IPP)	1000	0	885	481	10.33	431	10.80	-0.47
	Malana Stg-II HPS	100	0	100	0	0.48	20	0.43	0.05
	Shree Cement TPS	300	0	263	267	6.30	263	6.57	-0.26
	Budhil HPS(IPP)	70	0	69	35	0.66	28	0.76	-0.10
	<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1370</b>	<b>814</b>	<b>18.63</b>	<b>776</b>	<b>19.38</b>	<b>-0.75</b>
<b>H. Total Regional Entities (A-G)</b>	<b>22836</b>	<b>15853</b>	<b>16749</b>	<b>12235</b>	<b>305.25</b>	<b>12719</b>	<b>308.89</b>	<b>-3.64</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	950	1050	21.02	876
	Guru Nanak Dev TPS(Bhatinda)	440	95	110	2.03	84
	Guru Hargobind Singh TPS(L.mbt)	920	935	953	17.85	744
	Thermal (Total)	2620	1980	2113	40.89	1704
	Total Hydro	1148	411	322	8.13	339
	<b>Total Punjab</b>	<b>3768</b>	<b>2391</b>	<b>2435</b>	<b>49.02</b>	<b>2042</b>
Haryana	Panipat TPS	1367	665	669	15.44	643
	DCRTPP (Yamuna nagar)	600	562	559	12.73	530
	Faridabad GPS (NTPC)	432	179	166	4.24	177
	RGTPP (khedar) (IPP)	1200	541	473	11.94	498
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	401	404	9.50	396
	Thermal (Total)	4944	2348	2271	53.85	2244
	Total Hydro	62	27	27	0.67	28
	<b>Total Haryana</b>	<b>5006</b>	<b>2375</b>	<b>2298</b>	<b>54.52</b>	<b>2272</b>
	Rajasthan	kota TPS	1240	919	985	22.82
suratgarh TPS		1500	961	1021	24.25	1010
Chabra TPS		500	387	474	10.54	439
Dholpur GPS		330	134	141	3.31	138
Ramgarh GPS		111	105	63	2.35	98
RAPS A (NPC)		300	0	0	0.00	0
Barsingsar (NLC)		250	108	5	1.97	82
Giral LTPS		250	98	26	2.09	87
Rajwest LTPS (IPP)		1080	399	461	10.48	437
VSLP LTPS (IPP)		135	0	0	0.00	0
Thermal (Total)		5696	3111	3176	77.79	3241
Total Hydro		550	0	0	0.00	0
Wind power		2191	764	225	6.72	280
Biomass		91	36	36	0.85	35
Solar		201	0	0	1.35	56
Renewable/Others (Total)		2483	800	261	8.92	372
<b>Total Rajasthan</b>		<b>8729</b>	<b>3911</b>	<b>3437</b>	<b>86.72</b>	<b>3613</b>
UP	Anpara TPS	1630	1213	1219	29.20	1217
	Obra TPS	1382	540	471	11.80	492
	Paricha TPS	890	760	754	18.30	763
	Panki TPS	210	131	54	2.40	100
	Harduaganj TPS	665	256	266	6.20	258
	Tanda TPS (NTPC)	440	402	398	9.81	409
	Roza TPS (IPP)	1200	891	566	16.98	707
	Anpara-C (IPP)	1200	995	1008	24.08	1004
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	317	405	8.99	375
	Thermal (Total)	8067	5505	5141	127.76	5324
	Vishnuparyag HPS (IPP)	400	159	154	3.47	145
	Other Hydro	527	69	135	2.00	84
	Cogeneration	981	500	500	12.00	500
	<b>Total UP</b>	<b>9975</b>	<b>6233</b>	<b>5930</b>	<b>145.24</b>	<b>5907</b>
	Uttarakhand	Total Hydro	1303	547	548	12.66
<b>Total Uttarakhand</b>		<b>1303</b>	<b>547</b>	<b>548</b>	<b>12.66</b>	<b>528</b>
Delhi	Rajghat TPS	135	105	104	2.41	100
	Delhi Gas Turbine	282	149	226	4.20	175
	Pragati Gas Turbine	330	258	266	6.41	267
	Rithala GPS	108	0	0	0.00	0
	Bawana GPS	677	222	227	5.40	225
	Badarpur TPS (NTPC)	705	550	580	12.62	526
	Thermal (Total)	2237	1284	1403	31.04	1293
	<b>Total Delhi</b>	<b>2237</b>	<b>1284</b>	<b>1403</b>	<b>31.04</b>	<b>1293</b>
HP	Baspa HPS (IPP)	330	61	81	2.06	86
	Malana HPS (IPP)	86	82	7	0.54	23
	Other Hydro	589	333	399	8.77	365
	<b>Total HP</b>	<b>1005</b>	<b>476</b>	<b>487</b>	<b>11.37</b>	<b>474</b>
J & K	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>17687</b>	<b>17051</b>	<b>401.86</b>	<b>16600</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>1196</b>	<b>3466</b>	<b>46.58</b>	<b>1941</b>
<b>Total Regional Availability(Gross)</b>		<b>55815</b>	<b>35632</b>	<b>32752</b>	<b>753.69</b>	<b>31259</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	7922	2905	109.65	4569
State Control Area Hydro	5368	2000	2032	49.61	1923
<b>Total Regional Hydro</b>	<b>15731</b>	<b>9922</b>	<b>4937</b>	<b>159.26</b>	<b>6491</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	0	-150	0	150	0.00	2.06	-2.06
Gwalior-Agra (D/C)	200	1124	1218	0	11.68	0.00	11.68
Zerda-Kankroli	-298	-32	0	316	0.00	4.22	-4.22
Zerda-Bhinmal	-366	21	63	322	0.00	2.89	-2.89
Malanpur-Auraiya	-165	-61	0	179	0.00	2.70	-2.70
Badod-Kota/Morak	-116	-62	0	179	0.00	2.43	-2.43
Mundra-Mohindergarh(HVDC)	1264	1265	1268	0	29.22	0.00	29.22
<b>Sub Total WR</b>	<b>519</b>	<b>2105</b>			<b>40.90</b>	<b>14.30</b>	<b>26.60</b>
Pusauli Bypass	-150	-150	0	150	0.00	3.66	-3.66
MZP- GKP (D/C)	220	440	436	0	5.59	0.00	5.59
Patna-Balia(D/C)	361	566	600	0	10.45	0.00	10.45
B'Sharif-Balia (D/C)	106	257	310	0	3.44	0.00	3.44
Pusauli-Balia	-3	19	45	75	0.00	0.20	-0.20
Gaya-Fatehpur (765 Kv)	15	131	247	89	2.10	0.00	2.10
Pusauli-Sahupuri	164	138	164	0	3.33	0.00	3.33
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>677</b>	<b>1361</b>			<b>24.91</b>	<b>4.93</b>	<b>19.98</b>
<b>Total IR Exch</b>	<b>1196</b>	<b>3466</b>			<b>65.81</b>	<b>19.23</b>	<b>46.58</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
30.03	0.72	30.75	-9.03	-10.21	0.69	4.44	-2.59	2.59

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
19.82	34.22	54.05	19.98	26.60	46.58	0.16	-7.62	-7.46

**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	0.70	90.90	90.20	62.30	9.10

<----- Frequency (Hz) ----->				Average Frequency	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX (Hz)	MIN (Hz)
50.42	17.32	49.60	1.15	50.03	0.19	0.13	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	412	12:29	407	0:00	0.0	0.0	0.0	0.0
Gorakhpur	400	427	9:31	411	20:05	0.0	0.0	22.6	0.0
Bareilly	400	423	16:05	406	1:17	0.0	0.0	1.1	0.0
Kanpur	400	419	16:03	405	19:14	0.0	0.0	0.0	0.0
Dadri	400	420	16:02	407	19:12	0.0	0.0	0.0	0.0
Ballabgarh	400	424	3:03	409	19:52	0.0	0.0	29.1	0.0
Bawana	400	421	3:40	406	19:11	0.0	0.0	1.9	0.0
Bassi	400	427	2:08	407	5:52	0.0	0.0	27.8	0.0
Hissar	400	416	16:03	396	19:14	0.0	0.0	0.0	0.0
Moga	400	419	16:03	400	19:17	0.0	0.0	0.0	0.0
Abdullapur	400	424	17:30	294	9:34	0.1	0.1	12.1	0.0
Nalagarh	400	427	3:03	407	19:13	0.0	0.0	57.5	0.0
Kishenpur	400	415	3:02	395	19:51	0.0	0.0	0.0	0.0
Wagoora	400	409	12:58	384	19:52	0.0	13.4	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	0:00	9999	0:00	0.0	0.0	0.0	0.0
Balia	765	772	10:08	741	18:56	0.0	0.0	100.0	100.0
Moga	765	786	16:03	750	19:14	0.0	0.0	100.0	100.0
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 (m³/s)	Usage (m³/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 28.04.2013 :**

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 : 28.04.2013

पारी प्रभाती अजिंयता / SHIFT CHARGE ENGINEER