

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 29.04.2012  
Date of Reporting : 30.04.2012

### 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
30065	2179	32244	50.04	29385	1110	30495	50.01	684.7	31.73

\* 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	41.25	2.82		44.06	42.18	42.77	0.59	86.83	1.80
Haryana	44.54	0.77		45.31	41.14	42.57	1.44	87.88	0.99
Rajasthan	72.72	0.00	11.68	84.39	36.90	47.91	11.00	132.30	0.00
Delhi	20.69			20.69	52.31	47.24	-5.07	67.92	0.18
UP	101.47	6.26	7.20	114.93	101.39	111.58	10.19	226.51	25.37
Uttarakhand		12.08		12.08	12.51	16.62	4.11	28.70	0.89
HP		11.08		11.08	11.58	9.72	-1.86	20.79	0.61
J & K		13.79	0.00	13.79	18.24	16.51	-1.72	30.30	1.90
Chandigarh				0.00	4.62	3.48	-1.14	3.48	0.00
<b>Total</b>	<b>280.66</b>	<b>46.79</b>	<b>18.88</b>	<b>346.32</b>	<b>320.86</b>	<b>338.39</b>	<b>17.53</b>	<b>684.71</b>	<b>31.73</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	3798	450	218	-94	3690	0	13	-94	-2.24
Haryana	4651	213	585	107	4125	60	33	107	2.58
Rajasthan	5604	0	116	-366	5639	0	748	-366	-8.78
Delhi	3155	56	-264	437	2501	0	-38	237	8.69
UP	9003	1360	-75	465	10242	1050	762	265	7.36
Uttarakhand	1458	0	192	47	1172	0	294	47	1.14
HP	888	0	-131	-680	761	0	-25	-42	-6.40
J&K	1329	100	-218	-361	1137	0	-45	-361	-8.67
Chandigarh	179	0	-44	27	118	0	-39	0	0.61
<b>Total</b>	<b>30065</b>	<b>2179</b>	<b>379</b>	<b>-416</b>	<b>29385</b>	<b>1110</b>	<b>1703</b>	<b>-205</b>	<b>-5.71</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)	UI [OG:(+ve), UG: (-ve)]	
								Net MU	Net MU
A. NTPC	Singrauli STPS	2000	1450	1588	1575	34.98	1457	34.35	0.63
	Rihand I STPS	1000	915	992	983	21.42	892	21.05	0.37
	Rihand II STPS	1000	975	1045	1047	23.61	984	22.74	0.87
	Dadri I STPS	840	803	642	620	13.85	577	14.41	-0.56
	Dadri II STPS	980	470	358	378	8.55	356	8.94	-0.39
	Unchahar I TPS	420	390	418	414	8.80	367	9.04	-0.23
	Unchahar II TPS	420	333	399	206	7.61	317	7.53	0.09
	Unchahar III TPS	210	199	182	207	4.31	180	4.45	-0.14
	ISTPP (Jhajjar)	1000	960	720	708	16.66	694	16.38	0.27
	Dadri GPS	830	811	411	487	10.84	452	10.83	0.02
	Anta GPS	419	389	215	257	5.59	233	5.52	0.07
	Auraiya GPS	663	616	238	321	6.36	265	6.15	0.20
	<b>Sub Total (A)</b>	<b>9782</b>	<b>8312</b>	<b>7208</b>	<b>7253</b>	<b>162.58</b>	<b>6774</b>	<b>161.38</b>	<b>1.20</b>
	B. NPC	NAPS	440	272	303	314	6.49	271	6.53
RAPS- B		440	379	415	418	9.00	375	9.10	-0.09
RAPS- C		440	420	469	475	10.09	420	10.08	0.01
<b>Sub Total (B)</b>		<b>1320</b>	<b>1071</b>	<b>1187</b>	<b>1207</b>	<b>25.59</b>	<b>1066</b>	<b>25.70</b>	<b>-0.12</b>
C. NHPC	Chamera I HPS	540	534	540	360	9.64	402	9.71	-0.07
	Chamera II HPS	300	297	299	201	4.17	174	4.86	-0.69
	Bairasuil HPS	180	182	182	150	3.44	143	4.00	-0.56
	Salal-HPS	690	480	549	445	11.43	476	11.52	-0.09
	Tanakpur-HPS	94	21	40	26	0.64	27	0.66	-0.02
	Uri-HPS	480	480	478	478	11.56	482	11.71	-0.15
	Dhauliganga-HPS	280	277	278	0	1.44	60	1.51	-0.07
	Dulhasti-HPS	390	388	392	263	8.27	345	9.04	-0.76
	Sewa-II HPS	120	78	85	82	1.88	78	1.90	-0.03
	<b>Sub Total (C)</b>	<b>3074</b>	<b>2737</b>	<b>2843</b>	<b>2005</b>	<b>52.46</b>	<b>2186</b>	<b>54.91</b>	<b>-2.45</b>
D. NJPC	Nathpa Jhakri	1500	1600	1549	0	13.88	578	14.35	-0.47
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1600</b>	<b>1549</b>	<b>0</b>	<b>13.88</b>	<b>578</b>	<b>14.35</b>	<b>-0.47</b>
E. THDC	Tehri HPS	1000	335	454	148	5.77	241	6.00	-0.23
	Koteshwar HPS	400	300	304	0	3.06	128	3.00	0.06
	<b>Sub Total (E)</b>	<b>1400</b>	<b>635</b>	<b>758</b>	<b>148</b>	<b>8.84</b>	<b>368</b>	<b>9.00</b>	<b>-0.16</b>
F. BBMB	Bhakra HPS	1480	491	894	405	12.62	526	11.79	0.83
	Dehar HPS	990	408	660	420	9.57	399	9.80	-0.23
	Pong HPS	396	3	60	0	0.12	5	0.07	0.05
	<b>Sub Total (F)</b>	<b>2866</b>	<b>903</b>	<b>1614</b>	<b>825</b>	<b>22.31</b>	<b>930</b>	<b>21.67</b>	<b>0.64</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	48	0	0.69	29	0.73	-0.05
	KWHEP HPS(IPP)	1000	0	600	250	7.91	330	7.93	-0.03
	Malana Stg-II HPS	100	0	0	0	0.00	0	0.00	0.00
	Shree Cement TPS	300	0	210	204	5.09	212	4.84	0.25
	<b>Sub Total (G)</b>	<b>1592</b>	<b>0</b>	<b>858</b>	<b>454</b>	<b>13.69</b>	<b>570</b>	<b>13.51</b>	<b>0.17</b>
<b>H. Total Regional Entities (A-G)</b>	<b>21535</b>	<b>15257</b>	<b>16017</b>	<b>11892</b>	<b>299.34</b>	<b>12473</b>	<b>300.52</b>	<b>-1.18</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	680	950	19.23	801	
	Guru Nanak Dev TPS(Bhatinda)	440	200	200	4.38	182	
	Guru Hargobind Singh TPS(L.mbt)	920	771	858	17.63	735	
	Thermal (Total)	2620	1651	2008	41.25	1719	
	Total Hydro	1148	110	116	2.82	117	
	<b>Total Punjab</b>	<b>3768</b>	<b>1761</b>	<b>2124</b>	<b>44.06</b>	<b>1836</b>	
Haryana	Panipat TPS	1367	676	1076	22.43	934	
	DCRTPP (Yamuna nagar)	600	0	0	0.00	0	
	Faridabad GPS (NTPC)	432	380	399	8.59	358	
	RGTPP (khedar) (IPP)	1200	841	866	13.52	564	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	1320	0	0	0.00	0	
	Thermal (Total)	4944	1897	2341	44.54	1856	
	Total Hydro	62	30	35	0.77	32	
	<b>Total Haryana</b>	<b>5006</b>	<b>1927</b>	<b>2376</b>	<b>45.31</b>	<b>1888</b>	
Rajasthan	kota TPS	1240	1046	1102	26.18	1091	
	suratgarh TPS	1500	1180	1350	30.08	1254	
	Chabra TPS	500	187	192	4.60	192	
	Dholpur GPS	330	94	98	2.32	97	
	Ramgarh GPS	111	0	0	0.00	0	
	RAPS A (NPC)	300	0	0	0.00	0	
	Barsingsar (NLC)	250	0	0	0.00	0	
	Giral LTPS	250	50	55	0.99	41	
	Rajwest LTPS (IPP)	540	348	348	8.55	356	
	VSLP LTPS (IPP)	135	0	0	0.00	0	
	Thermal (Total)	5156	2905	3145	72.72	3030	
	Total Hydro	550	0	0	0.00	0	
	Wind power	1843	332	454	10.45	435	
	Biomass	91	51	51	1.23	51	
	Solar	128	0	0	0.00	0	
	Renewable/Others (Total)	2062	383	505	11.68	487	
	<b>Total Rajasthan</b>	<b>7767</b>	<b>3288</b>	<b>3650</b>	<b>84.39</b>	<b>3516</b>	
	UP	Anpara TPS	1630	1032	1103	25.10	1046
		Obra TPS	1382	489	489	11.80	492
Paricha TPS		640	388	329	8.90	371	
Panki TPS		210	144	99	2.90	121	
Harduaganj TPS		415	43	254	5.00	208	
Tanda TPS (NTPC)		440	189	194	4.74	198	
Roza TPS (IPP)		1200	1107	1031	24.18	1007	
Anpara-C (IPP)		1200	497	492	11.90	496	
Bajaj Energy Pvt.Ltd(IPP) TPS		450	243	402	6.95	290	
Thermal (Total)		7567	4132	4393	101.47	4228	
Vishnuparyag HPS (IPP)		400	114	109	2.74	114	
Other Hydro		527	176	0	3.52	147	
Cogeneration		981	300	300	7.20	300	
<b>Total UP</b>		<b>9475</b>	<b>4722</b>	<b>4802</b>	<b>114.93</b>	<b>4675</b>	
Uttarakhand		Total Hydro	1303	644	437	12.08	504
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>644</b>	<b>437</b>	<b>12.08</b>	<b>504</b>	
Delhi	Rajghat TPS	135	92	43	1.82	76	
	Delhi Gas Turbine	282	116	119	2.81	117	
	Pragati Gas Turbine	330	288	297	6.92	288	
	Rithala GPS	108	32	16	0.55	23	
	Bawana GPS	677	0	0	0.00	0	
	Badarpur TPS (NTPC)	705	400	395	8.59	358	
	Thermal (Total)	2237	928	870	20.69	862	
	<b>Total Delhi</b>	<b>2237</b>	<b>928</b>	<b>870</b>	<b>20.69</b>	<b>862</b>	
HP	Baspa HPS (IPP)	330	41	0	1.36	57	
	Malana HPS (IPP)	86	77	0	0.49	20	
	Other Hydro	589	393	369	9.22	384	
	<b>Total HP</b>	<b>1005</b>	<b>511</b>	<b>369</b>	<b>11</b>	<b>461</b>	
J & K	Baglihar HPS (IPP)	450	438	434	10.48	437	
	Other Hydro	323	140	132	3.31	138	
	Gas/Diesel/Others	183	0	0	0.00	0	
	<b>Total J &amp; K</b>	<b>956</b>	<b>578</b>	<b>566</b>	<b>13.79</b>	<b>574</b>	
<b>Total State Control Area Generation</b>		<b>31517</b>	<b>14359</b>	<b>15194</b>	<b>346.32</b>	<b>14316</b>	
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>1405</b>	<b>3037</b>	<b>48.30</b>	<b>2013</b>	
<b>Total Regional Availability(Gross)</b>		<b>53052</b>	<b>31781</b>	<b>30123</b>	<b>693.97</b>	<b>28801</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10133	7412	3228	106.09	4420
State Control Area Hydro	5368	2049	1523	44.05	1835
<b>Total Regional Hydro</b>	<b>15500</b>	<b>9461</b>	<b>4751</b>	<b>150.14</b>	<b>6256</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	-200	300	200	0.91	2.88	-1.97
Gwalior-Agra (D/C)	374	965	1242	0	18.14	0.00	18.14
Zerda-Kankroli	-86	-7	23	268	0.00	2.29	-2.29
Zerda-Bhinmal	-43	30	155	310	0.00	1.23	-1.23
Malanpur-Auraiya	-40	-6	0	128	0.00	0.59	-0.59
Badod-Kota/Morak	56	53	82	55	0.65	0.00	0.65
<b>Sub Total WR</b>	<b>561</b>	<b>835</b>			<b>19.71</b>	<b>6.99</b>	<b>12.72</b>
Pusauli Bypass	-289	117	162	289	1.00	1.96	-0.97
MZP- GKP (D/C)	400	798	836	0	14.09	0.00	14.09
Patna-Balia(D/C)	383	543	674	0	10.12	0.00	10.12
B'Sharif-Balia (D/C)	180	598	598	0	10.20	0.00	10.20
Barh - Balia(D/C)	0	0	0	0	0.00	0.00	0.00
Pusauli-Balia	0	0	0	0	0.00	0.00	0.00
Gaya-Fatehpur (765 Kv)	0	0	0	0	0.00	0.00	0.00
Pusauli-Sahupuri	164	120	164	0	3.00	0.00	3.00
K'nasa-Sahupuri	48	60	60	0	0.10	0.00	0.10
Son Ngr-Rihand	-42	-34	0	49	0.00	0.95	-0.95
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>844</b>	<b>2202</b>			<b>38.49</b>	<b>2.91</b>	<b>35.58</b>
<b>Total IR Exch</b>	<b>1405</b>	<b>3037</b>			<b>58.20</b>	<b>9.90</b>	<b>48.30</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
27.95	0.99	28.94	-8.82	3.16	4.22	7.92	1.68	-1.68

Total IR Schedule (MU)			Total IR Actual (MU)			Net IR UI (MU)		
Through ER	Through WR	Total	Through ER	Through WR	Total	Through ER	Through WR	Total
26.02	8.16	34.18	35.58	12.72	48.30	9.56	4.56	14.12

**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	1.80	92.60	90.80	50.60	7.40

<----- Frequency (Hz) ----->				Average Frequency	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX	MIN
Freq	Time	Freq	Time	Hz	(Hz)	(Hz)		
50.66	18.32	49.61	19.11	50.00	0.19	0.14	50.42	49.85

**VII. Voltage profile**

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	411	20:50	402	18:13	0.0	0.0	0.0	0.0
Gorakhpur	400	431	19:56	398	00:10	0.0	0.0	58.1	0.1
Bareilly	400	420	16:18	404	00:08	0.0	0.0	0.0	0.0
Kanpur	400	420	11:49	400	00:19	0.0	0.0	0.0	0.0
Dadri	400	420	23:55	411	18:11	0.0	0.0	0.0	0.0
Ballabgarh	400	422	03:56	410	00:08	0.0	0.0	4.7	0.0
Bawana	400	421	03:31	410	18:14	0.0	0.0	1.4	0.0
Bassi	400	426	03:58	411	05:37	0.0	0.0	48.7	0.0
Hissar	400	416	10:02	400	18:12	0.0	0.0	0.0	0.0
Moga	400	424	03:53	412	18:14	0.0	0.0	45.8	0.0
Abdullapur	400	426	12:08	400	20:01	0.1	0.1	35.4	0.0
Nalagarh	400	430	03:55	405	18:39	0.0	0.0	58.8	0.0
Kishenpur	400	418	03:28	404	19:12	0.0	0.0	0.0	0.0
Wagoora	400	408	03:55	383	20:25	0.0	16.6	0.0	0.0

**VIII. 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	474.64	345.61	482.98	536.08	355.12	402.50
Pong	426.72	384.05	403.48	304.55	411.06	534.70	101.91	7.11
Tehri	829.79	740.04	755.15	85.50	818.65	982.26	76.68	196.00
Koteshwar	612.50	598.50	610.50	4.69	NA	NA	186.00	203.00
Chamera-I	760.00	748.75	754.30	NA	NA	NA	226.49	259.82
Rihand	268.22	252.98	257.83	208.00	254.69	64.30	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	497.61	NA	508.96	NA	210.68	NA

\* NA: Not Available

**IX. System Constraints:**

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

**XI. Weather Conditions For 29.04.2012 :**

1. Scattered rains in Punjab, J&K and HP.

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

**XIII. Synchronisation of new 220 / 400 / 765 KV lines and energising of bus //substation :**

**XIV. Tripping of lines in pooling stations :**

**XV. Complete generation loss in a generating station :**

Report for : 29.04.2012

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER