

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 28.04.2012  
Date of Reporting : 29.04.2012

### 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
31692	1996	33688	50.05	29522	848	30370	50.13	701.2	32.42

\* 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	44.25	6.78		51.03	41.70	42.81	1.11	93.84	1.80
Haryana	55.54	0.72		56.26	38.45	38.23	-0.22	94.49	0.83
Rajasthan	73.26	0.00	16.17	89.43	33.79	43.04	9.25	132.47	0.00
Delhi	23.94			23.94	51.65	47.59	-4.06	71.53	0.18
UP	104.07	6.06	7.20	117.33	88.08	105.55	17.47	222.88	26.49
Uttarakhand		11.77		11.77	13.34	17.40	4.07	29.18	1.23
HP		11.83		11.83	13.47	10.49	-2.98	22.32	0.00
J & K		13.82	0.00	13.82	17.32	16.76	-0.56	30.58	1.90
Chandigarh				0.00	4.59	3.95	-0.64	3.95	0.00
<b>Total</b>	<b>301.06</b>	<b>50.99</b>	<b>23.37</b>	<b>375.42</b>	<b>302.38</b>	<b>325.82</b>	<b>23.44</b>	<b>701.24</b>	<b>32.42</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	4158	450	133	-94	3879	0	-359	-94	-2.24
Haryana	4971	0	704	54	3992	63	-138	54	1.31
Rajasthan	5895	0	173	-378	5547	0	867	-366	-9.00
Delhi	3273	46	-26	448	2500	0	-305	248	8.91
UP	9718	1400	618	465	10463	785	2316	265	7.36
Uttarakhand	1090	0	-225	47	1175	0	376	47	1.14
HP	957	0	-213	-680	776	0	-160	-42	-7.16
J&K	1438	100	-59	-361	1059	0	-52	-361	-8.67
Chandigarh	192	0	-28	27	132	0	-5	0	0.61
<b>Total</b>	<b>31692</b>	<b>1996</b>	<b>1077</b>	<b>-470</b>	<b>29522</b>	<b>848</b>	<b>2540</b>	<b>-247</b>	<b>-7.74</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	1450	1587	1587	34.42	1434	34.68	-0.27
	Rihand I STPS	1000	786	996	576	19.04	793	18.70	0.34
	Rihand II STPS	1000	975	1041	1046	23.40	975	23.22	0.18
	Dadri I STPS	840	803	632	620	16.60	692	14.73	1.87
	Dadri II STPS	980	470	461	373	10.60	441	10.14	0.46
	Unchahar I TPS	420	390	423	377	8.90	371	9.10	-0.20
	Unchahar II TPS	420	195	208	178	4.48	187	4.47	0.01
	Unchahar III TPS	210	199	206	189	4.56	190	4.63	-0.07
	ISTPP (Jhajjar)	1000	960	761	785	16.78	699	16.59	0.19
	Dadri GPS	830	807	449	577	12.07	503	12.12	-0.04
	Anta GPS	419	390	292	247	6.55	273	6.38	0.17
	Auraiya GPS	663	616	238	320	6.44	268	6.33	0.11
	<b>Sub Total (A)</b>	<b>9782</b>	<b>8041</b>	<b>7293.68</b>	<b>6875.47</b>	<b>163.82</b>	<b>6826</b>	<b>161.10</b>	<b>2.72</b>
	B. NPC	NAPS	440	268	307	315	6.51	271	6.43
RAPS- B		440	379	413	419	8.95	373	9.10	-0.14
RAPS- C		440	420	469	475	10.08	420	10.08	0.00
<b>Sub Total (B)</b>		<b>1320</b>	<b>1067</b>	<b>1189</b>	<b>1209</b>	<b>25.54</b>	<b>1064</b>	<b>25.61</b>	<b>-0.07</b>
C. NHPC	Chamera I HPS	540	534	540	356	7.59	316	7.90	-0.31
	Chamera II HPS	300	297	291	176	4.78	199	5.53	-0.75
	Bairasuil HPS	180	182	182	182	3.72	155	4.00	-0.27
	Salal-HPS	690	481	554	552	11.16	465	11.13	0.03
	Tanakpur-HPS	94	27	41	24	0.62	26	0.64	-0.01
	Uri-HPS	480	476	480	479	11.56	482	11.59	-0.02
	Dhauliganga-HPS	280	277	0	0	1.40	58	1.52	-0.12
	Dulhasti-HPS	390	388	413	258	8.48	353	9.01	-0.53
	Sewa-II HPS	120	80	85	75	1.92	80	1.93	-0.02
	<b>Sub Total (C)</b>	<b>3074</b>	<b>2741</b>	<b>2586</b>	<b>2101</b>	<b>51.24</b>	<b>2135</b>	<b>53.25</b>	<b>-2.01</b>
D. NJPC	Nathpa Jhakri	1500	1600	1543	0	14.19	591	14.58	-0.39
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1600</b>	<b>1543</b>	<b>0</b>	<b>14.19</b>	<b>591</b>	<b>14.58</b>	<b>-0.39</b>
E. THDC	Tehri HPS	1000	465	467	0	6.41	267	6.50	-0.09
	Koteshwar HPS	400	300	302	0	3.06	127	3.00	0.06
	<b>Sub Total (E)</b>	<b>1400</b>	<b>765</b>	<b>769</b>	<b>0</b>	<b>9.47</b>	<b>395</b>	<b>9.50</b>	<b>-0.03</b>
F. BBMB	Bhakra HPS	1480	480	775	411	11.95	498	11.51	0.44
	Dehar HPS	990	424	495	420	10.67	445	10.18	0.49
	Pong HPS	396	3	60	0	0.11	5	0.07	0.04
	<b>Sub Total (F)</b>	<b>2866</b>	<b>907</b>	<b>1330</b>	<b>831</b>	<b>22.73</b>	<b>947</b>	<b>21.76</b>	<b>0.97</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	13	0	1.02	42	1.23	-0.21
	KWHEP HPS(IPP)	1000	0	600	225	7.91	330	7.92	-0.01
	Malana Stg-II HPS	100	0	0	0	0.00	0	0.00	0.00
	Shree Cement TPS	300	0	172	111	4.06	169	4.84	-0.78
	<b>Sub Total (G)</b>	<b>1592</b>	<b>0</b>	<b>785</b>	<b>336</b>	<b>12.99</b>	<b>541</b>	<b>14.00</b>	<b>-1.00</b>
<b>H. Total Regional Entities (A-G)</b>	<b>21535</b>	<b>15121</b>	<b>15496</b>	<b>11353</b>	<b>299.99</b>	<b>12499</b>	<b>299.79</b>	<b>0.19</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	1035	21.06	878	
	Guru Nanak Dev TPS(Bhatinda)	440	200	218	4.46	186	
	Guru Hargobind Singh TPS(L.mbt)	920	868	958	18.73	780	
	Thermal (Total)	2620	2018	2211	44.25	1844	
	Total Hydro	1148	125	439	6.78	283	
	<b>Total Punjab</b>	<b>3768</b>	<b>2143</b>	<b>2650</b>	<b>51.03</b>	<b>2126</b>	
Haryana	Panipat TPS	1367	987	1010	24.69	1029	
	DCRTPP (Yamuna nagar)	600	0	0	0.00	0	
	Faridabad GPS (NTPC)	432	382	397	8.55	356	
	RGTPP (khedar) (IPP)	1200	858	995	22.31	929	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	1320	0	0	0.00	0	
	Thermal (Total)	4944	2227	2402	55.54	2314	
	Total Hydro	62	26	32	0.72	30	
	<b>Total Haryana</b>	<b>5006</b>	<b>2253</b>	<b>2434</b>	<b>56.26</b>	<b>2344</b>	
	Rajasthan	kota TPS	1240	1137	1161	26.71	1113
suratgarh TPS		1500	1276	1345	30.36	1265	
Chabra TPS		500	215	185	4.59	191	
Dholpur GPS		330	98	101	2.31	96	
Ramgarh GPS		111	3	3	0.06	2	
RAPS A (NPC)		300	0	0	0.00	0	
Barsingsar (NLC)		250	0	0	0.00	0	
Giral LTPS		250	11	43	0.69	29	
Rajwest LTPS (IPP)		540	348	345	8.55	356	
VSLP LTPS (IPP)		135	0	0	0.00	0	
Thermal (Total)		5156	3088	3183	73.26	3053	
Total Hydro		550	0	0	0.00	0	
Wind power		1843	442	343	15.10	629	
Biomass		91	44	44	1.07	44	
Solar		128	0	0	0.00	0	
Renewable/Others (Total)		2062	486	387	16.17	674	
<b>Total Rajasthan</b>		<b>7767</b>	<b>3574</b>	<b>3570</b>	<b>89.43</b>	<b>3726</b>	
UP		Anpara TPS	1630	1218	1199	26.50	1104
		Obra TPS	1382	537	533	11.50	479
	Paricha TPS	640	432	438	9.30	388	
	Panki TPS	210	130	150	2.90	121	
	Harduaganj TPS	415	302	302	6.40	267	
	Tanda TPS (NTPC)	440	193	192	4.77	199	
	Roza TPS (IPP)	1200	1040	1110	24.34	1014	
	Anpara-C (IPP)	1200	471	306	9.50	396	
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	391	358	8.85	369	
	Thermal (Total)	7567	4714	4588	104.07	4336	
	Vishnuparyag HPS (IPP)	400	124	119	2.80	117	
	Other Hydro	527	166	33	3.27	136	
	Cogeneration	981	300	300	7.20	300	
	<b>Total UP</b>	<b>9475</b>	<b>5304</b>	<b>5040</b>	<b>117.33</b>	<b>4772</b>	
	Uttarakhand	Total Hydro	1303	572	414	11.77	491
<b>Total Uttarakhand</b>		<b>1303</b>	<b>572</b>	<b>414</b>	<b>11.77</b>	<b>491</b>	
Delhi	Rajghat TPS	135	43	50	1.23	51	
	Delhi Gas Turbine	282	155	197	4.23	176	
	Pragati Gas Turbine	330	290	294	7.23	301	
	Rithala GPS	108	26	31	0.75	31	
	Bawana GPS	677	0	0	0.00	0	
	Badarpur TPS (NTPC)	705	395	570	10.50	437	
	Thermal (Total)	2237	909	1142	23.94	998	
	<b>Total Delhi</b>	<b>2237</b>	<b>909</b>	<b>1142</b>	<b>23.94</b>	<b>998</b>	
	HP	Baspa HPS (IPP)	330	29	29	1.55	64
Malana HPS (IPP)		86	67	0	0.51	21	
Other Hydro		589	407	421	9.77	407	
<b>Total HP</b>		<b>1005</b>	<b>503</b>	<b>450</b>	<b>12</b>	<b>493</b>	
J & K	Baglihar HPS (IPP)	450	436	436	10.51	438	
	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>576</b>	<b>568</b>	<b>13.82</b>	<b>576</b>	
<b>Total State Control Area Generation</b>		<b>31517</b>	<b>15834</b>	<b>16268</b>	<b>375.42</b>	<b>15526</b>	
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>1558</b>	<b>3047</b>	<b>46.91</b>	<b>1954</b>	
<b>Total Regional Availability(Gross)</b>		<b>53052</b>	<b>32888</b>	<b>30667</b>	<b>722.31</b>	<b>29980</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10133	6841	3157	106.56	4440
State Control Area Hydro	5368	1968	1936	48.19	2008
<b>Total Regional Hydro</b>	<b>15500</b>	<b>8809</b>	<b>5093</b>	<b>154.75</b>	<b>6448</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	-200	0	0	500	0.00	2.88	-2.88
Gwalior-Agra (D/C)	725	750	1081	0	14.84	0.00	14.84
Zerda-Kankroli	24	-75	28	463	4.20	0.00	4.20
Zerda-Bhinmal	60	-36	135	515	0.00	3.72	-3.72
Malanpur-Auraiya	-90	-10	0	125	0.00	0.59	-0.59
Badod-Kota/Morak	18	23	40	34	0.30	0.00	0.30
<b>Sub Total WR</b>	<b>537</b>	<b>652</b>			<b>19.34</b>	<b>7.18</b>	<b>12.16</b>
Pusauli Bypass	-132	165	96	173	0.63	1.00	-0.38
MZP- GKP (D/C)	274	778	796	0	12.11	0.00	12.11
Patna-Balia(D/C)	382	384	458	0	8.15	0.00	8.15
B'Sharif-Balia (D/C)	343	542	567	0	9.84	0.00	9.84
Barh - Balia(D/C)	0	384	423	0	3.02	0.00	3.02
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	148	116	152	0	2.87	0.00	2.87
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>1021</b>	<b>2395</b>			<b>36.70</b>	<b>1.95</b>	<b>34.75</b>
<b>Total IR Exch</b>	<b>1558</b>	<b>3047</b>			<b>56.04</b>	<b>9.13</b>	<b>46.91</b>

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

ER	ISGS/LT Schedule (MU)		Bilateral Schedule (MU)		Power Exchange Shdl (MU)		Wheeling (MU)	
	Bhutan	Total	Through ER	Through WR	Through ER	Through WR	Through ER	Through WR
24.19	1.03	25.21	-9.87	2.40	-0.49	-0.46	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
16.53	-0.39	16.14	34.75	12.16	46.91	18.21	12.55	30.77

**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	2.67	94.92	91.25	70.94	5.08

<----- Frequency (Hz) ----->				Average Frequency Hz	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX (Hz)	MIN (Hz)
Freq	Time	Freq	Time	50.07	0.24	0.11	50.32	49.78
50.49	8.05	49.56	23.00					

**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	412	07:05	404	18:24	0.0	0.0	0.0	0.0
Gorakhpur	400	432	11:16	395	19:45	0.1	0.1	42.7	2.2
Bareilly	400	424	08:04	400	18:56	0.0	0.0	1.4	0.0
Kanpur	400	421	08:02	401	18:56	0.0	0.0	0.2	0.0
Dadri	400	422	08:03	406	18:25	0.0	0.0	0.6	0.0
Ballabgarh	400	426	08:03	406	19:23	0.0	0.0	19.1	0.0
Bawana	400	424	08:02	406	18:54	0.0	0.0	11.9	0.0
Bassi	400	429	03:34	409	19:22	0.0	0.0	39.7	0.0
Hissar	400	416	08:04	237	19:12	0.1	0.1	0.0	0.0
Moga	400	426	03:34	409	19:21	0.0	0.0	22.5	0.0
Abdullapur	400	426	09:04	242	14:08	0.2	0.2	26.3	0.0
Nalagarh	400	428	03:07	410	19:24	0.0	0.0	18.9	0.0
Kishenpur	400	420	03:35	401	19:23	0.0	0.0	0.0	0.0
Wagoora	400	409	03:13	383	20:26	0.0	17.4	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	474.68	345.61	483.34	544.27	337.30	362.54
Pong	426.72	384.05	403.37	296.79	410.92	524.54	58.42	5.75
Tehri	829.79	740.04	756.75	98.32	818.65	982.26	81.30	200.00
Koteshwar	612.50	598.50	610.20	4.89	NA	NA	215.00	191.00
Chamera-I	760.00	748.75	754.30	NA	NA	NA	235.47	242.40
Rihand	268.22	252.98	258.32	226.70	245.78	67.80	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	497.01	NA	508.44	NA	258.59	231.38

\* NA: Not Available

**IX. System Constraints:**

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

**XI. Weather Conditions For 28.04.2012 :**

1. Normal weather

**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 : 28.04.2012

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER