

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 12.05.2013  
Date of Reporting : 13.05.2013

### 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
31988	103	32091	50.20	33445	790	34235	50.29	788.6	21.11

\* 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	35.89	8.28		44.17	76.65	76.91	0.25	121.07	0.00
Haryana	54.43	0.62		55.05	71.15	68.99	-2.16	124.04	0.00
Rajasthan	72.89	0.00	15.74	88.63	58.59	47.83	-10.76	136.46	0.00
Delhi	23.34			23.34	59.80	56.36	-3.44	79.70	0.07
UP	122.58	6.99	8.40	137.97	107.39	103.18	-4.21	241.15	19.26
Uttarakhand		17.16		17.16	16.20	12.54	-3.66	29.70	0.06
HP		15.05		15.05	6.80	6.28	-0.52	21.32	0.02
J & K		14.09	0.00	14.09	20.87	17.32	-3.55	31.41	1.70
Chandigarh				0.00	4.71	3.81	-0.90	3.81	0.00
<b>Total</b>	<b>309.13</b>	<b>62.19</b>	<b>24.14</b>	<b>395.45</b>	<b>422.16</b>	<b>393.20</b>	<b>-28.96</b>	<b>788.65</b>	<b>21.11</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	5228	0	-199	911	4847	0	-75	1045	23.83
Haryana	5428	0	22	216	5156	0	-44	-20	3.07
Rajasthan	4976	0	-1195	562	5817	0	-521	319	11.16
Delhi	3469	3	440	-244	3426	0	-253	-352	-6.39
UP	9016	0	-661	77	10680	790	-83	1604	13.75
Uttarakhand	1359	0	-119	387	1371	0	-41	332	6.49
HP	862	0	-68	-818	843	0	7	-772	-17.24
J&K	1466	100	-44	-140	1139	0	-262	-195	-4.50
Chandigarh	185	0	-42	0	165	0	-11	0	0.00
<b>Total</b>	<b>31988</b>	<b>103</b>	<b>-1867</b>	<b>950</b>	<b>33445</b>	<b>790</b>	<b>-1282</b>	<b>1960</b>	<b>30.16</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	1843	2049	1632	39.39	1641	39.55	-0.17
	Rihand I STPS	1000	915	738	760	16.58	691	17.70	-1.13
	Rihand II STPS	1000	965	873	835	18.06	752	19.19	-1.14
	Rihand III STPS	500	475	413	372	8.52	355	9.41	-0.89
	Dadri I STPS	840	807	873	835	13.71	571	13.68	0.03
	Dadri II STPS	980	969	603	643	16.41	684	17.11	-0.70
	Unchahar I TPS	420	386	291	290	6.69	279	7.04	-0.35
	Unchahar II TPS	420	400	305	331	6.89	287	6.81	0.08
	Unchahar III TPS	210	200	153	158	3.41	142	3.44	-0.03
	ISTPP (Jhajjar)	1500	940	604	612	13.44	560	13.32	0.12
	Dadri GPS	830	803	355	350	8.16	340	8.21	-0.06
	Anta GPS	419	389	0	0	0.00	0	0.00	0.00
	Auraiya GPS	663	621	288	272	6.41	267	6.47	-0.06
	<b>Sub Total (A)</b>	<b>10782</b>	<b>9713</b>	<b>7545</b>	<b>7090</b>	<b>157.64</b>	<b>6568</b>	<b>161.94</b>	<b>-4.30</b>
	B. NPC	NAPS	440	298	340	348	7.38	307	7.15
RAPS- B		440	400	446	453	9.70	404	9.60	0.10
RAPS- C		440	430	474	476	10.12	422	10.32	-0.20
<b>Sub Total (B)</b>		<b>1320</b>	<b>1128</b>	<b>1260</b>	<b>1277</b>	<b>27.20</b>	<b>1133</b>	<b>27.07</b>	<b>0.12</b>
C. NHPC	Chamera I HPS	540	540	78	0	7.32	305	8.58	-1.26
	Chamera II HPS	300	303	304	302	6.64	277	7.27	-0.64
	Chamera III HPS	231	231	226	118	4.37	182	5.34	-0.98
	Bairasuil HPS	180	182	182	120	2.83	118	3.51	-0.68
	Salal-HPS	690	635	670	571	13.73	572	15.16	-1.44
	Tanakpur-HPS	94	50	50	45	1.10	46	1.21	-0.10
	Uri-HPS	480	480	480	474	11.51	480	11.52	-0.01
	Dhauliganga-HPS	280	280	268	0	3.36	140	3.47	-0.11
	Dulhasti-HPS	390	387	411	356	8.57	357	9.29	-0.72
	Sewa-II HPS	120	102	100	113	2.25	94	2.46	-0.21
	<b>Sub Total (C)</b>	<b>3305</b>	<b>3191</b>	<b>2769</b>	<b>2099</b>	<b>61.67</b>	<b>2569</b>	<b>67.82</b>	<b>-6.16</b>
	D.NJPC	Natpaha Jhakri	1500	1605	1425	1416	31.17	1299	35.21
<b>Sub Total (D)</b>		<b>1500</b>	<b>1605</b>	<b>1425</b>	<b>1416</b>	<b>31.17</b>	<b>1299</b>	<b>35.21</b>	<b>-4.04</b>
E. THDC	Tehri HPS	1000	353	325	136	6.12	255	6.60	-0.48
	Koteshwar HPS	400	253	256	0	2.16	90	2.30	-0.14
	<b>Sub Total (E)</b>	<b>1400</b>	<b>606</b>	<b>581</b>	<b>136</b>	<b>8.28</b>	<b>345</b>	<b>8.90</b>	<b>-0.62</b>
F. BBMB	Bhakra HPS	1480	875	1202	924	20.71	863	21.01	-0.30
	Dehar HPS	990	481	825	450	11.11	463	11.54	-0.43
	Pong HPS	396	29	240	0	0.79	33	0.25	0.54
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1385</b>	<b>2267</b>	<b>1374</b>	<b>32.61</b>	<b>1359</b>	<b>32.80</b>	<b>-0.19</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	100	110	2.17	90	2.81	-0.65
	KWHEP HPS(IPP)	1000	0	700	914	17.54	731	20.40	-2.86
	Malana Stg-II HPS	100	0	46	100	0.84	35	0.76	0.08
	Shree Cement TPS	300	0	209	255	5.59	233	5.82	-0.23
	Budhil HPS(IPP)	70	0	32	35	0.64	27	1.10	-0.46
	<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1087</b>	<b>1414</b>	<b>26.78</b>	<b>1116</b>	<b>30.90</b>	<b>-4.12</b>
<b>H. Total Regional Entities (A-G)</b>	<b>22836</b>	<b>17628</b>	<b>16934</b>	<b>14806</b>	<b>345.34</b>	<b>14389</b>	<b>364.63</b>	<b>-19.29</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	19.65	819	
	Guru Nanak Dev TPS(Bhatinda)	440	200	200	4.32	180	
	Guru Hargobind Singh TPS(L.mbt)	920	516	534	11.91	496	
	Thermal (Total)	2620	1566	1584	35.89	1495	
	Total Hydro	1148	347	347	8.28	345	
	<b>Total Punjab</b>	<b>3768</b>	<b>1913</b>	<b>1931</b>	<b>44.17</b>	<b>1840</b>	
Haryana	Panipat TPS	1367	831	919	21.71	905	
	DCRTPP (Yamuna nagar)	600	268	257	6.06	252	
	Faridabad GPS (NTPC)	432	170	172	4.03	168	
	RGTPP (kheadar) (IPP)	1200	445	433	11.07	461	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	1320	334	543	11.56	482	
	Thermal (Total)	4944	2048	2324	54.43	2268	
	Total Hydro	62	24	23	0.62	26	
		<b>Total Haryana</b>	<b>5006</b>	<b>2072</b>	<b>2347</b>	<b>55.05</b>	<b>2294</b>
	Rajasthan	kota TPS	1240	781	991	21.59	900
suratgarh TPS		1500	756	768	17.66	736	
Chabra TPS		500	193	228	4.72	197	
Dholpur GPS		330	0	130	1.99	83	
Ramgarh GPS		111	6	59	2.36	98	
RAPS A (NPC)		300	180	180	4.30	179	
Barsingsar (NLC)		250	87	107	2.17	90	
Giral LTPS		250	113	101	2.42	101	
Rajwest LTPS (IPP)		1080	441	793	15.70	654	
VSLP LTPS (IPP)		135	0		0.00	0	
Thermal (Total)		5696	2557	3357	72.89	3037	
Total Hydro		550	0	0	0.00	0	
Wind power		2191	944	595	13.65	569	
Biomass		91	32	32	0.77	32	
Solar		201	0	0	1.32	55	
Renewable/Others (Total)		2483	976	627	15.74	656	
		<b>Total Rajasthan</b>	<b>8729</b>	<b>3533</b>	<b>3984</b>	<b>88.63</b>	<b>3693</b>
UP		Anpara TPS	1630	1400	1386	32.70	1363
		Obra TPS	1288	511	511	12.40	517
	Paricha TPS	1140	797	559	18.50	771	
	Panki TPS	210	149	77	2.90	121	
	Harduaganj TPS	665	396	385	9.60	400	
	Tanda TPS (NTPC)	440	330	395	9.35	389	
	Roza TPS (IPP)	1200	774	810	20.19	841	
	Anpara-C (IPP)	1200	476	507	9.78	408	
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	296	315	7.16	298	
	Thermal (Total)	8223	5129	4945	122.58	5107	
	Vishnuparyag HPS (IPP)	400	178	174	4.02	167	
	Other Hydro	527	129	141	2.97	124	
	Cogeneration	981	350	350	8.40	350	
		<b>Total UP</b>	<b>10131</b>	<b>5786</b>	<b>5610</b>	<b>137.97</b>	<b>5581</b>
	Uttarakhand	Total Hydro	1303	698	671	17.16	715
<b>Total Uttarakhand</b>		<b>1303</b>	<b>698</b>	<b>671</b>	<b>17.16</b>	<b>715</b>	
Delhi	Rajghat TPS	135	103	102	2.40	100	
	Delhi Gas Turbine	282	84	83	1.96	82	
	Pragati Gas Turbine	330	258	264	6.37	266	
	Rithala GPS	95	0	0	0.00	0	
	Bawana GPS	686	216	217	5.18	216	
	Badarpur TPS (NTPC)	705	0	380	7.43	310	
	Thermal (Total)	2232	661	1046	23.34	973	
		<b>Total Delhi</b>	<b>2232</b>	<b>661</b>	<b>1046</b>	<b>23.34</b>	<b>973</b>
HP	Baspa HPS (IPP)	330	170	220	3.43	143	
	Malana HPS (IPP)	86	20	84	0.83	34	
	Other Hydro	589	499	427	10.80	450	
	<b>Total HP</b>	<b>1005</b>	<b>689</b>	<b>731</b>	<b>15.05</b>	<b>627</b>	
J & K	Baglihar HPS (IPP)	450	478	475	11.34	472	
	Other Hydro	323	112	116	2.75	115	
	Gas/Diesel/Others	183	0	0	0.00	0	
		<b>Total J &amp; K</b>	<b>956</b>	<b>590</b>	<b>591</b>	<b>14.09</b>	<b>587</b>
<b>Total State Control Area Generation</b>		<b>33130</b>	<b>15942</b>	<b>16911</b>	<b>395.45</b>	<b>16310</b>	
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>1440</b>	<b>2804</b>	<b>58.70</b>	<b>2446</b>	
<b>Total Regional Availability(Gross)</b>		<b>55966</b>	<b>34316</b>	<b>34521</b>	<b>799.49</b>	<b>33145</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	7888	6149	154.27	6428
State Control Area Hydro	5368	2477	2504	62.19	2424
<b>Total Regional Hydro</b>	<b>15731</b>	<b>10365</b>	<b>8653</b>	<b>216.46</b>	<b>8852</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	-500	-200	0	500	0.00	6.60	-6.60
Gwalior-Agra (D/C)	547	793	1358	0	17.13	0.00	17.13
Zerda-Kankroli	-220	-205	0	418	0.00	4.87	-4.87
Zerda-Bhinmal	-225	-207	0	425	0.00	4.47	-4.47
Malanpur-Auraiya	0	-79	0	139	0.00	1.56	-1.56
Badod-Kota/Morak	-151	-89	0	261	0.00	2.49	-2.49
Mundra-Mohindergarh(HVDC)	1190	1341	1437	0	30.74	0.00	30.74
<b>Sub Total WR</b>	<b>641</b>	<b>1354</b>			<b>47.87</b>	<b>19.98</b>	<b>27.88</b>
Pusauli Bypass	-150	-150	0	150	0.00	3.65	-3.65
MZP- GKP (D/C)	468	672	888	0	15.14	0.00	15.14
Patna-Balia(D/C)	279	407	453	0	9.05	0.00	9.05
B'Sharif-Balia (D/C)	112	259	276	0	4.76	0.00	4.76
Pusauli-Balia	-36	12	16	65	0.00	0.29	-0.29
Gaya-Fatehpur (765 Kv)	146	147	272	67	3.34	0.00	3.34
Pusauli-Sahupuri	16	143	178	0	3.54	0.00	3.54
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>799</b>	<b>1450</b>			<b>35.82</b>	<b>5.00</b>	<b>30.82</b>
<b>Total IR Exch</b>	<b>1440</b>	<b>2804</b>			<b>83.69</b>	<b>24.99</b>	<b>58.70</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
25.44	1.42	26.87	-2.54	5.34	6.79	-7.78	-4.64	4.64

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
26.47	45.49	71.96	30.82	27.88	58.70	4.35	-17.61	-13.26

**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	68.00	68.00	89.50	32.00

<----- 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				
50.94	17.39	49.72	22.34	50.16	0.48	0.15	50.84	50.06

**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	16:03	405	05:18	0.0	0.0	0.0	0.0
Gorakhpur	400	427	16:12	404	09:52	0.0	0.0	17.7	0.0
Bareilly	400	419	16:10	405	11:00	0.0	0.0	0.0	0.0
Kanpur	400	422	17:36	403	19:42	0.0	0.0	1.2	0.0
Dadri	400	420	17:33	406	19:56	0.0	0.0	0.0	0.0
Balabhgarh	400	427	18:19	409	19:40	0.0	0.0	23.3	0.0
Bawana	400	420	03:58	407	19:40	0.0	0.0	0.0	0.0
Bassi	400	434	18:20	403	19:44	0.0	0.0	24.9	1.4
Hissar	400	411	03:58	397	19:42	0.0	0.0	0.0	0.0
Moga	400	419	17:33	403	19:41	0.0	0.0	0.0	0.0
Abdullapur	400	417	14:05	405	19:40	0.0	0.0	0.0	0.0
Nalagarh	400	417	17:37	407	19:42	0.0	0.0	0.0	0.0
Kishenpur	400	413	17:38	399	19:43	0.0	0.0	0.0	0.0
Wagoora	400	410	03:57	391	20:35	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	771	16:02	734	19:44	0.0	0.0	100.0	100.0
Balia	765	762	16:03	713	07:40	0.0	0.0	100.0	100.0
Moga	765	784	17:34	753	19:43	0.0	0.0	100.0	100.0
Agra	765	781	18:02	745	05:42	0.0	0.0	0.0	0.0
Bhiwani	765	793	13:29	762	05:40	0.0	0.0	0.0	0.0
Unnao	765	758	18:17	730	05:42	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	475.71	368.17	471.46	293.05	588.96	782.90
Pong	426.72	384.05	400.39	230.85	402.89	288.96	40.89	11.50
Tehri	829.79	740.04	757.50	100.00	818.65	982.26	127.58	181.00
Koteshwar	612.50	598.50	601.40	0.80	NA	NA	181.00	147.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	236.98	198.27
Rihand	268.22	252.98	256.79	149.00	257.37	173.70	NA	NA
RPS	352.80	343.81	346.59	NA	349.12	NA	NA	NA
Jawahar Sagar	298.70	295.78	297.88	NA	298.25	NA	NA	NA
RSD	527.91	487.91	506.82	NA	500.20	NA	155.60	114.74

\* NA: Not Available

**X. System Constraints:**

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

**XII. Weather Conditions For 12.05.2013 :**

1. Cloudy weather and Thunderstorm in part of 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 :**

1: Badarpur TPS- 04 units tripped at 18.17hrs /12.05.2013 due to tripping of all outgoing lines.

Total generation loss of about 340 MW.

Report for : 12.05.2013

पारी प्रभाती अश्विन्ता / SHIFT CHARGE ENGINEER