

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 10.05.2013  
Date of Reporting : 11.05.2013

### 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
35562	2104	37666	50.08	36063	1420	37483	50.12	857.3	61.95

\* 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	47.66	9.45		57.11	78.72	77.51	-1.20	134.62	2.00
Haryana	56.69	0.60		57.28	78.35	77.71	-0.64	135.00	0.07
Rajasthan	86.99	0.07	18.62	105.68	57.19	50.84	-6.35	156.52	0.30
Delhi	33.18			33.18	68.27	63.45	-4.82	96.63	0.18
UP	121.21	7.46	9.60	138.26	99.95	100.93	0.98	239.19	57.27
Uttarakhand		16.52		16.52	19.08	18.82	-0.26	35.34	0.36
HP		15.76		15.76	9.90	7.76	-2.14	23.52	0.06
J & K		13.49	0.00	13.49	18.29	17.55	-0.74	31.04	1.70
Chandigarh				0.00	5.08	5.50	0.42	5.50	0.00
<b>Total</b>	<b>345.72</b>	<b>63.34</b>	<b>28.22</b>	<b>437.28</b>	<b>434.83</b>	<b>420.07</b>	<b>-14.76</b>	<b>857.35</b>	<b>61.95</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	5244	0	-634	870	6152	0	188	1186	20.71
Haryana	6066	0	-35	311	5096	0	-97	46	4.01
Rajasthan	6031	0	-163	515	6675	0	-80	136	10.88
Delhi	4250	4	-90	51	3741	0	-243	-188	-1.28
UP	9685	2000	-263	92	10809	1420	304	1620	13.71
Uttarakhand	1661	0	64	469	1383	0	-18	361	9.00
HP	972	0	-122	-722	836	0	-14	-338	-11.37
J&K	1411	100	-43	-103	1180	0	151	-183	-3.62
Chandigarh	243	0	2	0	191	0	28	20	0.54
<b>Total</b>	<b>35562</b>	<b>2104</b>	<b>-1284</b>	<b>1484</b>	<b>36063</b>	<b>1420</b>	<b>219</b>	<b>2659</b>	<b>42.57</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	1563	1302	2074	36.50	1521	36.28	0.22
	Rihand I STPS	1000	915	805	992	20.91	871	20.99	-0.08
	Rihand II STPS	1000	965	880	1041	22.29	929	22.18	0.10
	Rihand III STPS	500	-12	0	0	0.00	0	-0.29	0.29
	Dadri I STPS	840	807	800	854	16.92	705	18.76	-1.83
	Dadri II STPS	980	506	477	483	10.98	458	11.72	-0.74
	Unchahar I TPS	420	386	373	392	8.75	364	8.85	-0.10
	Unchahar II TPS	420	400	383	391	8.75	364	8.77	-0.02
	Unchahar III TPS	210	199	182	211	4.35	181	4.39	-0.04
	ISTPP (Jhajjar)	1500	940	673	628	14.22	593	14.30	-0.07
	Dadri GPS	830	798	339	331	8.00	333	8.09	-0.10
	Anta GPS	419	388	0	119	0.82	34	0.98	-0.16
	Auraiya GPS	663	620	268	153	5.51	230	5.46	0.05
	<b>Sub Total (A)</b>	<b>10782</b>	<b>8475</b>	<b>6482</b>	<b>7669</b>	<b>158.00</b>	<b>6583</b>	<b>160.48</b>	<b>-2.48</b>
B. NPC	NAPS	440	297	336	341	7.16	298	7.13	0.03
	RAPS- B	440	400	443	449	9.66	403	9.60	0.06
	RAPS- C	440	430	464	472	10.04	418	10.32	-0.28
	<b>Sub Total (B)</b>	<b>1320</b>	<b>1127</b>	<b>1243</b>	<b>1262</b>	<b>26.86</b>	<b>1119</b>	<b>27.05</b>	<b>-0.19</b>
C. NHPC	Chamera I HPS	540	540	540	0	6.63	276	6.65	-0.02
	Chamera II HPS	300	303	302	310	7.15	298	6.56	0.59
	Chamera III HPS	231	231	232	227	4.92	205	4.60	0.32
	Bairasuil HPS	180	182	160	120	2.69	112	2.76	-0.07
	Salal-HPS	690	493	670	421	12.59	525	11.83	0.76
	Tanakpur-HPS	94	42	62	35	1.06	44	1.01	0.06
	Uri-HPS	480	476	478	480	11.55	481	11.54	0.01
	Dhauliganga-HPS	280	280	281	0	2.94	123	3.00	-0.06
	Dulhasti-HPS	390	387	394	405	8.92	372	9.24	-0.32
	Sewa-II HPS	120	102	124	0	1.40	58	1.52	-0.12
	<b>Sub Total (C)</b>	<b>3305</b>	<b>3036</b>	<b>3243</b>	<b>1998</b>	<b>59.85</b>	<b>2494</b>	<b>58.71</b>	<b>1.14</b>
	D. NJPC	Natpaha Jhakri	1500	1605	1577	758	28.08	1170	28.10
<b>Sub Total (D)</b>		<b>1500</b>	<b>1605</b>	<b>1577</b>	<b>758</b>	<b>28.08</b>	<b>1170</b>	<b>28.10</b>	<b>-0.02</b>
E. THDC	Tehri HPS	1000	330	330	150	6.56	273	6.60	-0.04
	Koteshwar HPS	400	241	242	0	2.61	109	2.60	0.01
	<b>Sub Total (E)</b>	<b>1400</b>	<b>571</b>	<b>572</b>	<b>150</b>	<b>9.17</b>	<b>382</b>	<b>9.20</b>	<b>-0.03</b>
F. BBMB	Bhakra HPS	1480	879	1201	810	21.54	898	21.11	0.43
	Dehar HPS	990	516	825	330	12.81	534	12.37	0.44
	Pong HPS	396	19	180	0	0.51	21	0.25	0.26
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1414</b>	<b>2206</b>	<b>1140</b>	<b>34.86</b>	<b>1453</b>	<b>33.73</b>	<b>1.13</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	100	110	2.17	90	2.04	0.13
	KWHEP HPS(IPP)	1000	0	600	901	15.69	654	15.10	0.59
	Malana Stg-II HPS	100	0	42	110	0.78	33	0.66	0.12
	Shree Cement TPS	300	0	248	264	6.15	256	6.21	-0.06
	Budhil HPS(IPP)	70	0	0	69	0.98	41	1.03	-0.06
<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>990</b>	<b>1454</b>	<b>25.76</b>	<b>1073</b>	<b>25.04</b>	<b>0.72</b>	
<b>H. Total Regional Entities (A-G)</b>	<b>22836</b>	<b>16228</b>	<b>16313</b>	<b>14431</b>	<b>342.58</b>	<b>14274</b>	<b>342.31</b>	<b>0.27</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	870	964	22.09	920
	Guru Nanak Dev TPS(Bhatinda)	440	295	341	6.85	285
	Guru Hargobind Singh TPS(L.mbt)	920	759	944	18.72	780
	Thermal (Total)	2620	1924	2249	47.66	1986
	Total Hydro	1148	347	348	9.45	394
	<b>Total Punjab</b>	<b>3768</b>	<b>2271</b>	<b>2597</b>	<b>57.11</b>	<b>2379</b>
Haryana	Panipat TPS	1367	937	995	22.79	950
	DCRTPP (Yamuna nagar)	600	276	283	6.58	274
	Faridabad GPS (NTPC)	432	173	174	4.33	180
	RGTPP (khedar) (IPP)	1200	454	485	11.24	468
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	564	393	11.75	489
	Thermal (Total)	4944	2404	2330	56.69	2362
	Total Hydro	62	24	20	0.60	25
	<b>Total Haryana</b>	<b>5006</b>	<b>2428</b>	<b>2350</b>	<b>57.28</b>	<b>2387</b>
	Rajasthan	kota TPS	1240	1105	1080	26.55
suratgarh TPS		1500	792	932	21.35	890
Chabra TPS		500	197	203	4.99	208
Dholpur GPS		330	0	104	2.33	97
Ramgarh GPS		111	96	140	3.15	131
RAPS A (NPC)		300	180	180	4.25	177
Barsingsar (NLC)		250	177	210	4.93	206
Giral LTPS		250	101	94	2.35	98
Rajwest LTPS (IPP)		1080	684	635	17.08	712
VSLP LTPS (IPP)		135	0	0	0.00	0
Thermal (Total)		5696	3332	3578	86.99	3625
Total Hydro		550	0	0	0.07	3
Wind power		2191	1055	956	15.66	653
Biomass		91	34	34	0.83	34
Solar		201	0	0	2.13	89
Renewable/Others (Total)		2483	1089	990	18.62	776
<b>Total Rajasthan</b>		<b>8729</b>	<b>4421</b>	<b>4568</b>	<b>105.68</b>	<b>4403</b>
UP	Anpara TPS	1630	1527	1357	30.40	1267
	Obra TPS	1288	551	564	12.30	513
	Paricha TPS	1140	658	544	13.20	550
	Panki TPS	210	80	75	1.70	71
	Harduaganj TPS	665	453	415	8.70	363
	Tanda TPS (NTPC)	440	397	405	9.75	406
	Roza TPS (IPP)	1200	1008	1008	24.14	1006
	Anpara-C (IPP)	1200	544	526	12.77	532
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	365	365	8.25	344
	Thermal (Total)	8223	5583	5259	121.21	5050
	Vishnuparyag HPS (IPP)	400	237	197	4.78	199
	Other Hydro	527	151	64	2.67	111
	Cogeneration	981	400	400	9.60	400
	<b>Total UP</b>	<b>10131</b>	<b>6371</b>	<b>5920</b>	<b>138.26</b>	<b>5562</b>
Uttarakhand	Total Hydro	1303	628	685	16.52	688
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>628</b>	<b>685</b>	<b>16.52</b>	<b>688</b>
Delhi	Rajghat TPS	135	97	97	2.58	107
	Delhi Gas Turbine	282	152	158	3.73	156
	Pragati Gas Turbine	330	279	290	7.12	297
	Rithala GPS	95	0	0	0.00	0
	Bawana GPS	686	287	265	6.50	271
	Badarpur TPS (NTPC)	705	590	640	13.25	552
	Thermal (Total)	2232	1405	1450	33.18	1382
	<b>Total Delhi</b>	<b>2232</b>	<b>1405</b>	<b>1450</b>	<b>33.18</b>	<b>1382</b>
HP	Baspa HPS (IPP)	330	307	164	4.26	178
	Malana HPS (IPP)	86	24	90	0.71	30
	Other Hydro	589	466	462	10.79	449
	<b>Total HP</b>	<b>1005</b>	<b>797</b>	<b>716</b>	<b>15.76</b>	<b>657</b>
J & K	Baglihar HPS (IPP)	450	436	436	10.47	436
	Other Hydro	323	125	156	3.03	126
	Gas/Diesel/Others	183	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>956</b>	<b>561</b>	<b>592</b>	<b>13.49</b>	<b>562</b>
<b>Total State Control Area Generation</b>		<b>33130</b>	<b>18882</b>	<b>18878</b>	<b>437.28</b>	<b>18021</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>2605</b>	<b>4167</b>	<b>89.75</b>	<b>3740</b>
<b>Total Regional Availability(Gross)</b>		<b>55966</b>	<b>37800</b>	<b>37476</b>	<b>869.61</b>	<b>36034</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	8340	5167	150.60	6275
State Control Area Hydro	5368	2508	2425	63.34	2440
<b>Total Regional Hydro</b>	<b>15731</b>	<b>10848</b>	<b>7592</b>	<b>213.94</b>	<b>8715</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	150	500	0	5.48	0.00	5.48
Gwalior-Agra (D/C)	321	1080	1554	0	24.14	0.00	24.14
Zerda-Kankroli	-243	-171	0	417	0.00	5.75	-5.75
Zerda-Bhinmal	-229	-140	36	358	0.00	3.55	-3.55
Malanpur-Auraiya	-128	-85	0	158	0.00	2.21	-2.21
Badod-Kota/Morak	-118	-190	80	131	0.00	2.91	-2.91
Mundra-Mohindergarh(HVDC)	1435	1435	1438	0	34.73	0.00	34.73
<b>Sub Total WR</b>	<b>1538</b>	<b>2079</b>			<b>64.35</b>	<b>14.42</b>	<b>49.93</b>
Pusauli Bypass	-150	-250	0	250	0.00	5.13	-5.13
MZP- GKP (D/C)	370	716	824	0	13.80	0.00	13.80
Patna-Balia(D/C)	463	759	795	0	14.75	0.00	14.75
B'Sharif-Balia (D/C)	161	495	523	0	9.04	0.00	9.04
Pusauli-Balia	-25	124	216	0	2.00	0.00	2.00
Gaya-Fatehpur (765 Kv)	123	116	263	6	2.97	0.00	2.97
Pusauli-Sahupuri	161	168	171	0	3.46	0.00	3.46
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>1067</b>	<b>2088</b>			<b>46.02</b>	<b>6.20</b>	<b>39.82</b>
<b>Total IR Exch</b>	<b>2605</b>	<b>4167</b>			<b>110.37</b>	<b>20.62</b>	<b>89.75</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
36.07	1.40	37.47	-0.57	4.53	7.71	8.27	-1.72	1.72

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
42.89	64.05	106.94	39.82	49.93	89.75	-3.07	-14.12	-17.19

**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	90.80	90.80	68.40	9.20

<----- 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				
50.55	18.03	49.70	11.09	50.05	0.16	0.11	50.44	49.87

**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	411	21:10	399	09:24	0.0	0.0	0.0	0.0
Gorakhpur	400	425	21:12	408	01:47	0.0	0.0	6.2	0.0
Bareilly	400	421	21:15	409	01:40	0.0	0.0	0.0	0.0
Kanpur	400	417	21:06	404	19:38	0.0	0.0	0.0	0.0
Dadri	400	416	04:03	399	10:23	0.0	0.0	0.0	0.0
Ballabgarh	400	422	04:03	405	10:23	0.0	0.0	2.3	0.0
Bawana	400	417	03:14	401	10:10	0.0	0.0	0.0	0.0
Bassi	400	425	03:13	400	10:26	0.0	0.0	7.5	0.0
Hissar	400	410	21:21	391	11:10	0.0	0.0	0.0	0.0
Moga	400	421	18:02	401	19:42	0.0	0.0	0.5	0.0
Abdullapur	400	413	03:07	284	07:46	0.1	0.1	0.0	0.0
Nalagarh	400	415	21:22	397	11:14	0.0	0.0	0.0	0.0
Kishenpur	400	415	18:01	400	09:17	0.0	0.0	0.0	0.0
Wagoora	400	413	18:01	392	06:15	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	767	21:06	732	09:42	0.0	0.0	100.0	100.0
Balia	765	775	19:42	714	17:21	0.0	0.0	100.0	100.0
Moga	765	801	18:03	758	19:38	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	475.91	368.17	471.63	293.05	569.45	780.98
Pong	426.72	384.05	400.37	230.85	402.97	288.96	39.05	34.15
Tehri	829.79	740.04	757.85	105.63	818.65	982.26	113.64	207.00
Koteshwar	612.50	598.50	600.96	0.63	NA	NA	207.00	173.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	232.26	179.48
Rihand	268.22	252.98	256.82	150.30	257.43	176.30	NA	NA
RPS	352.80	343.81	346.57	NA	349.06	NA	NA	NA
Jawahar Sagar	298.70	295.78	297.88	NA	298.22	NA	NA	NA
RSD	527.91	487.91	506.78	NA	500.07	NA	149.34	186.07

\* NA: Not Available

**X. System Constraints:**

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

**XII. Weather Conditions For 10.05.2013 :**

1.Hot & Dry 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 : 10.05.2013

पारी प्रभाती अजिंयता / SHIFT CHARGE ENGINEER