

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 09.05.2014  
Date of Reporting : 10.05.2014

### 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
37662	2312	39974	50.14	34033	320	34353	50.14	860.2	36.63

\* 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:

UI [OD:(+ve), UD: (-ve)]

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	25.41	10.06		35.46	85.10	84.76	-0.34	120.22	0.00
Haryana	10.78	0.61		11.39	96.37	98.56	2.19	109.94	2.28
Rajasthan	116.07	0.00	4.67	120.74	53.62	55.24	1.62	175.98	0.21
Delhi	20.05			20.05	72.59	71.21	-1.37	91.27	0.00
UP	130.66	9.04	2.40	142.09	124.98	124.04	-0.94	266.13	31.85
Uttarakhand		14.53		14.53	18.10	18.94	0.84	33.47	0.53
HP		21.75		21.75	4.99	5.46	0.47	27.21	0.06
J & K		13.55	0.00	13.55	17.96	17.29	-0.67	30.84	1.70
Chandigarh				0.00	4.49	5.12	0.63	5.12	0.00
<b>Total</b>	<b>302.96</b>	<b>69.54</b>	<b>7.07</b>	<b>379.57</b>	<b>478.21</b>	<b>480.63</b>	<b>2.42</b>	<b>860.19</b>	<b>36.63</b>

\* Shortage furnished by the respective constituent.\$ Others include UP Co-generation and JK Diesel

### II. B. State's Demand Met in MWs:

UI/OA/PX [OD/Import: (+ve), UD/Export: (-ve)]

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	STOA/PX transaction
Punjab	5339	0	-2	590	4585	0	163	830	18.75
Haryana	5337	307	111	499	4182	0	37	344	10.85
Rajasthan	7138	0	-80	-191	6942	0	279	-6	1.09
Delhi	4102	0	35	146	3409	0	-189	-45	0.57
UP	11348	1830	11	926	11610	320	-110	1452	21.70
Uttarakhand	1652	75	12	381	1193	0	87	204	6.46
HP	1028	0	-3	-1138	879	0	-19	-922	-21.22
J&K	1487	100	39	-389	1058	0	-160	-651	-11.91
Chandigarh	232	0	7	0	176	0	1	0	0.24
<b>Total</b>	<b>37662</b>	<b>2312</b>	<b>130</b>	<b>824</b>	<b>34033</b>	<b>320</b>	<b>89</b>	<b>1207</b>	<b>26.51</b>

\* STOA figures are at sellers boundary & PX figures are at regional boundary.

### III. Regional Entities :

UI [OG:(+ve), UG: (-ve)]

Station/ Constituent	Inst. Capacity	Declared	Peak MW	Off Peak MW	Energy	Average	Schedule	UI
	(Effective) MW	Capacity(MW)	(Gross)	(Gross)	(Net MU)	Sentout(MW)	Net MU	Net MU
<b>A. NTPC</b>								
Singrauli STPS	2000	1663	1549	2068	39.95	1664	39.89	0.06
Rihand I STPS	1000	860	851	905	19.56	815	19.84	-0.29
Rihand II STPS	1000	950	839	1023	21.52	897	21.59	-0.07
Rihand III STPS	1000	925	786	920	20.58	858	20.87	-0.29
Dadri I STPS	840	813	601	693	14.88	620	15.80	-0.92
Dadri II STPS	980	980	720	762	18.09	754	18.86	-0.77
Unchahar I TPS	420	408	311	401	8.13	339	8.62	-0.49
Unchahar II TPS	420	204	172	207	4.00	167	4.22	-0.22
Unchahar III TPS	210	204	215	206	4.12	172	4.32	-0.20
ISTPP (Jhajjar)	1500	1000	644	898	16.80	700	17.22	-0.42
Dadri GPS	830	805	307	356	7.23	301	7.30	-0.07
Anta GPS	419	392	0	0	0.00	0	0.00	0.00
Auraiya GPS	663	641	139	149	3.26	136	3.28	-0.02
Dadri Solar	5	1	0	0	0.00	0	0.03	-0.03
Unchahar Solar	10	0	0	0	0.00	0	0.00	0.00
<b>Sub Total (A)</b>	<b>11297</b>	<b>9845</b>	<b>7134</b>	<b>8588</b>	<b>178</b>	<b>7421</b>	<b>182</b>	<b>-4</b>
<b>B. NPC</b>								
NAPS	440	143	164	165	3.45	144	3.43	0.02
RAPS- B	440	402	452	447	9.67	403	9.65	0.03
RAPS- C	440	410	455	448	9.71	405	9.84	-0.13
<b>Sub Total (B)</b>	<b>1320</b>	<b>955</b>	<b>1071</b>	<b>1060</b>	<b>22.84</b>	<b>952</b>	<b>22.92</b>	<b>-0.08</b>
<b>C. NHPC</b>								
Chamera I HPS	540	516	540	540	12.31	513	12.39	-0.09
Chamera II HPS	300	300	304	304	7.23	301	7.20	0.03
Chamera III HPS	231	229	224	222	5.04	210	5.05	-0.01
Bairasui HPS	180	182	182	182	4.34	181	4.37	-0.03
Salal-HPS	690	642	669	678	15.56	648	15.41	0.14
Tanakpur-HPS	94	47	46	61	1.14	47	1.13	0.01
Uri-HPS	480	475	474	477	11.52	480	11.40	0.12
Uri-II HPS	240	239	241	244	5.69	237	5.73	-0.04
Dhauliganga-HPS	280	78	70	140	3.30	138	1.80	1.50
Dulhasti-HPS	390	387	379	400	9.40	392	9.30	0.10
Sewa-II HPS	120	122	130	130	3.06	128	2.93	0.13
Parbati 3	390	260	0	63	2.55	106	2.49	0.06
<b>Sub Total ©</b>	<b>3935</b>	<b>3477</b>	<b>3259</b>	<b>3441</b>	<b>81</b>	<b>3381</b>	<b>79</b>	<b>2</b>
<b>D. SJVNL</b>								
NJPC	1500	1605	1557	1607	35.29	1470	35.11	0.18
Rampur HEP	206		80	80	1.79	75		1.79
<b>Sub Total (D)</b>	<b>1706</b>	<b>1605</b>	<b>1637</b>	<b>1687</b>	<b>37.08</b>	<b>1545</b>	<b>35.11</b>	<b>1.97</b>
<b>E. THDC</b>								
Tehri HPS	1000	445	297	448	9.06	378	9.00	0.06
Koteshwar HPS	400	300	91	301	4.51	188	4.50	0.01
<b>Sub Total (E)</b>	<b>1400</b>	<b>745</b>	<b>388</b>	<b>749</b>	<b>13.57</b>	<b>566</b>	<b>13.50</b>	<b>0.07</b>
<b>F. BBMB</b>								
Bhakra HPS	1514	760	589	1296	18.60	775	18.25	0.35
Dehar HPS	990	480	495	495	11.70	488	11.52	0.18
Pong HPS	396	34	0	189	0.82	34	0.81	0.01
<b>Sub Total (F)</b>	<b>2900</b>	<b>1274</b>	<b>1084</b>	<b>1980</b>	<b>31.12</b>	<b>1297</b>	<b>30.58</b>	<b>0.54</b>
<b>G. IPP(s)/JV(s)</b>								
ADHPL HPS(IPP)	192	0	164	142	2.39	99	2.34	0.05
KWHEP HPS(IPP)	1000	0	876	816	19.56	815	19.12	0.44
Malana Stg-II HPS	100	0	0	112	1.04	43	0.96	0.08
Shree Cement TPS	300	0	224	258	5.73	239	5.69	0.04
Budhil HPS(IPP)	70	0	35	69	1.23	51	1.34	-0.11
<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1299</b>	<b>1397</b>	<b>29.94</b>	<b>1248</b>	<b>29.44</b>	<b>0.50</b>
<b>H. Total Regional Entities (A-G)</b>	<b>24221</b>	<b>17902</b>	<b>15872</b>	<b>18902</b>	<b>393.80</b>	<b>16408</b>	<b>392.58</b>	<b>1.22</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	570	560	12	499
	Guru Nanak Dev TPS(Bhatinda)	440	90	90	2	83
	Guru Hargobind Singh TPS(L.mbt)	920	250	220	4	177
	Goindwal(GVK)		0	0	0	0
	Rajpura	700	0	412	7	300
	Talwandi Saboo	660	0	0	0.00	0
	Thermal (Total)	<b>3980</b>	<b>910</b>	<b>1282</b>	<b>25</b>	<b>1059</b>
	Total Punjab	<b>5128</b>	<b>1334</b>	<b>1673</b>	<b>35.46</b>	<b>1478</b>
Haryana	Panipat TPS	1367	0	0	0.00	0
	DCRTPP (Yamuna nagar)	600	258	258	6.33	264
	Faridabad GPS (NTPC)	432	175	175	4.45	185
	RGTPP (khedar) (IPP)	1200	0	0	0.00	0
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	0	0	0.00	0
	Thermal (Total)	4944	433	433	11	449
	Total Hydro	62	25	25	0.61	25
	Total Haryana	<b>5006</b>	<b>458</b>	<b>458</b>	<b>11.39</b>	<b>474</b>
	Rajasthan	kota TPS	1240	803	830	19.05
suratgarh TPS		1500	1200	1249	30.25	1260
Chabra TPS		750	348	397	9.28	387
Dholpur GPS		330	132	126	3.21	134
Ramgarh GPS		221	23	50	1.15	48
RAPS A (NPC)		300	180	180	4.05	169
Barsingsar (NLC)		250	84	83	1.83	76
Giral LTPS		250	0	0	0.00	0
Rajwest LTPS (IPP)		1080	921	722	20.46	853
VSLP LTPS (IPP)		135	0	0	0.00	0
Kalisindh Thermal		600	0	0	0.00	0
Kawai(Adani)		1320	909	1191	26.78	1116
Thermal (Total)		7976	4600	4828	116	4836
Total Hydro		550	0	0	0.00	0
Wind power		2191	262	109	3.56	148
Biomass		91	28	28	0.67	28
Solar		201	0	0	0.44	18
Renewable/Others (Total)		2483	290	137	4.67	195
Total Rajasthan	<b>11009</b>	<b>4890</b>	<b>4965</b>	<b>120.74</b>	<b>5031</b>	
UP	Anpara TPS	1630	1294	1346	32.10	1338
	Obra TPS	1288	374	374	8.90	371
	Paricha TPS	1140	744	713	17.90	746
	Panki TPS	210	108	72	2.20	92
	Harduaganj TPS	665	167	194	4.40	183
	Tanda TPS (NTPC)	440	371	356	9.14	381
	Roza TPS (IPP)	1200	1098	1107	26.00	1083
	Anpara-C (IPP)	1200	878	909	21.69	904
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	361	402	8.33	347
	Thermal (Total)	8223	5395	5473	131	5444
	Vishnuparyag HPS (IPP)	400	268	252	6.02	251
	Other Hydro	527	120	143	3.01	126
	Cogeneration	981	100	100	2.40	100
	Total UP	<b>10131</b>	<b>5883</b>	<b>5968</b>	<b>142.09</b>	<b>5670</b>
Uttarakhand	Total Hydro	1303	580	633	14.53	605
	Total Uttarakhand	<b>1303</b>	<b>580</b>	<b>633</b>	<b>14.53</b>	<b>605</b>
Delhi	Rajghat TPS	135	108	111	2.83	118
	Delhi Gas Turbine	282	104	102	2.51	105
	Pragati Gas Turbine	330	97	92	2.31	96
	Rithala GPS	95	0	0	0.00	0
	Bawana GPS	1370	0	0	0.00	0
	Badarpur TPS (NTPC)	705	575	590	12.41	517
	Thermal (Total)	2917	884	895	20.05	836
	Total Delhi	<b>2917</b>	<b>884</b>	<b>895</b>	<b>20.05</b>	<b>836</b>
HP	Baspa HPS (IPP)	300	301	207	5.19	216
	Malana HPS (IPP)	86	0	38	3.14	131
	Other Hydro	728	579	594	13.42	559
	Total HP	<b>1114</b>	<b>880</b>	<b>839</b>	<b>21.75</b>	<b>906</b>
J & K	Baglihar HPS (IPP)	450	438	438	10.53	439
	Other Hydro/IPP	436	105	137	3.02	126
	Gas/Diesel/Others	209	0	0	0.00	0
	Total J & K	<b>1094</b>	<b>543</b>	<b>575</b>	<b>13.55</b>	<b>565</b>
Total State Control Area Generation		<b>37702</b>	<b>15452</b>	<b>16006</b>	<b>379.57</b>	<b>15564</b>
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			<b>5126</b>	<b>3879</b>	<b>107.85</b>	<b>4494</b>
Total Regional Availability(Gross)		<b>61923</b>	<b>36450</b>	<b>38787</b>	<b>881.21</b>	<b>36466</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	11233	7408	8927	185.90	7746
State Control Area Hydro	5589	2572	2606	69.54	2646
Total Regional Hydro	<b>16823</b>	<b>9980</b>	<b>11533</b>	<b>255.43</b>	<b>10392</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	0	500	300	2.61	0.22	2.39
Gwalior-Agra (D/C)	1716	1603	1964	0	37.88	0.00	37.88
Zerda-Kankroli	-51	-171	0	171	0.00	2.82	-2.82
Zerda-Bhinmal	9	-103	68	130	0.00	0.79	-0.79
Malanpur-Auraiya	-51	-23	0	51	0.00	0.67	-0.67
Badod-Kota/Morak	-3	-43	25	84	0.00	0.70	-0.70
Mundra-Mohindergarh(HVDC)	1993	1497	2005	0	41.16	0.00	41.16
<b>Sub Total WR</b>	<b>3913</b>	<b>2760</b>			<b>81.65</b>	<b>5.20</b>	<b>76.45</b>
Pusaali Bypass	266	260	360	0	7.25	0.00	7.25
MZP- GKP (D/C)	170	338	380	0	7.23	0.00	7.23
Patna-Balia(D/C)	266	260	360	0	6.57	0.00	6.57
B Sharif-Balia (D/C)	280	197	293	0	4.40	0.00	4.40
Pusaali-Balia	-29	-49	0	92	0.00	1.49	-1.49
Gaya-Fatehpur (765 Kv)	3	-23	34	63	1.01	0.00	1.01
Pusaali-Sahupuri	143	169	192	0	4.12	0.00	4.12
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-38	-35	0	45	0.00	0.30	-0.30
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	152	2	230	0	2.61	0.00	2.61
<b>Sub Total ER</b>	<b>1213</b>	<b>1119</b>			<b>33.19</b>	<b>1.79</b>	<b>31.40</b>
<b>Total IR Exch</b>	<b>5126</b>	<b>3879</b>			<b>114.84</b>	<b>6.99</b>	<b>107.85</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
32.05	0.63	32.67	7.72	-0.21	-2.13	-1.51	0.00	0.00

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
38.26	66.38	104.64	31.40	76.45	107.85	-6.86	10.07	3.21

**VI. Frequency Profile** <----- % of Time Frequency ----->

<49.2	<49.7	<49.8	<49.9	<50.0	49.9-50.05	50.05-50.10	>50.10	>50.20	>50.50
0.00	0.14	2.01	10.84	42.00	53.69	18.66	16.98	0.63	0.00

<----- 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				
50.24	5.03	49.67	19.25	50.01	0.08	0.09	50.26	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	407	07:26	396	22:07	0.0	0.0	0.0	0.0
Gorakhpur	400	430	07:35	409	22:09	0.0	0.0	57.2	0.0
Bareilly	400	416	04:07	394	22:09	0.0	0.0	0.0	0.0
Kanpur	400	413	04:01	396	22:09	0.0	0.0	0.0	0.0
Dadri	400	418	04:01	397	15:24	0.0	0.0	0.0	0.0
Ballabgarh	400	425	04:00	402	15:27	0.0	0.0	21.6	0.0
Bawana	400	421	04:00	398	15:03	0.0	0.0	3.4	0.0
Bassi	400	426	04:01	400	10:15	0.0	0.0	12.2	0.0
Hissar	400	414	03:59	390	15:04	0.0	0.0	0.0	0.0
Moga	400	412	04:01	392	15:02	0.0	0.0	0.0	0.0
Abdullapur	400	418	04:01	401	15:13	0.0	0.0	0.0	0.0
Nalagarh	400	420	03:45	400	14:43	0.0	0.0	0.0	0.0
Kishenpur	400	412	03:40	399	22:15	0.0	0.0	0.0	0.0
Wagoora	400	410	04:01	390	21:11	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	13:15	733	22:09	0.0	4.6	0.0	0.0
Balia	765	778	07:57	735	22:11	0.0	1.3	0.0	0.0
Moga	765	783	04:01	744	15:13	0.0	0.0	0.0	0.0
Agra	765	791	04:03	752	22:16	0.0	0.0	0.0	0.0
Bhiwani	765	801	04:02	760	15:13	0.0	0.0	0.3	0.0
Unnao	765	760	04:03	723	22:14	1.4	28.4	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 (m <sup>3</sup> /s)	Usage (m <sup>3</sup> /s)
Bhakra	513.59	445.62	482.25	511.55	478.09	420.92	468.28	637.89
Pong	426.72	384.05	402.93	288.96	400.35	223.85	159.45	54.14
Tehri	829.79	740.04	756.15	92.00	NA	NA	108.46	238.00
Koteshwar	612.50	598.50	610.98	4.95	601.50	0.98	244.00	243.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	206.25	230.88
Rihand	268.22	252.98	NA	NA	257.13	163.30	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	516.64	144.00	506.65	144.00	224.47	197.51

\* NA: Not Available

**X. System Constraints:**

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

**XII. Weather Conditions For 09.05.2014 :**

1. Hot weather condition in 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 :**

Report for : 09.05.2014

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER