

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 23.05.2014  
Date of Reporting : 24.05.2014

### 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
35959	2009	37968	50.06	38726	1675	40401	50.07	890.6	41.87

\* 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	44.53	13.91		58.44	63.44	62.37	-1.07	120.81	0.00
Haryana	57.10	0.14		57.24	79.71	76.33	-3.38	133.57	0.00
Rajasthan	115.95	0.00	12.80	128.75	52.51	51.99	-0.52	180.74	0.00
Delhi	23.77			23.77	77.03	75.73	-1.30	99.50	0.42
UP	126.27	9.39	1.20	136.86	128.12	126.59	-1.53	263.45	39.45
Uttarakhand		13.95		13.95	20.92	19.84	-1.08	33.79	0.15
HP		17.49		17.49	6.65	6.62	-0.03	24.11	0.16
J & K		13.65	0.00	13.65	17.13	15.60	-1.53	29.25	1.70
Chandigarh				0.00	4.49	5.40	0.91	5.40	0.00
<b>Total</b>	<b>367.61</b>	<b>68.53</b>	<b>14.00</b>	<b>450.14</b>	<b>450.00</b>	<b>440.47</b>	<b>-9.53</b>	<b>890.61</b>	<b>41.87</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	4690	0	-103	394	5751	0	-27	394	9.58
Haryana	5198	0	24	328	6210	0	108	64	2.84
Rajasthan	7000	0	-188	-41	7506	0	-10	-342	0.04
Delhi	4236	6	165	311	3955	0	-230	211	7.07
UP	11060	1885	90	785	11878	1675	47	2036	29.73
Uttarakhand	1167	0	-257	431	1427	0	-43	407	9.67
HP	999	18	-72	-1090	872	0	-3	-670	-16.47
J&K	1375	100	-70	-427	937	0	-149	-648	-12.00
Chandigarh	235	0	10	0	191	0	23	0	0.26
<b>Total</b>	<b>35959</b>	<b>2009</b>	<b>-400</b>	<b>692</b>	<b>38726</b>	<b>1675</b>	<b>-285</b>	<b>1452</b>	<b>30.72</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	1578	1514	1861	37.49	1562	37.32	0.17
Rihand I STPS	1000	835	892	879	20.02	834	19.75	0.27
Rihand II STPS	1000	741	870	807	17.86	744	17.51	0.34
Rihand III STPS	1000	908	844	957	21.36	890	21.28	0.08
Dadri I STPS	840	813	823	841	18.16	757	18.74	-0.58
Dadri II STPS	980	980	743	908	21.00	875	22.09	-1.09
Unchahar I TPS	420	399	374	407	8.50	354	9.28	-0.79
Unchahar II TPS	420	404	373	409	8.83	368	9.21	-0.38
Unchahar III TPS	210	202	181	202	4.31	179	4.55	-0.25
ISTPP (Jhajjar)	1500	1000	653	646	14.01	584	14.37	-0.36
Dadri GPS	830	799	164	160	3.81	159	3.86	-0.05
Anta GPS	419	391	0	0	0.00	0	0.00	0.00
Auraiya GPS	663	421	131	144	3.25	135	3.26	-0.02
Dadri Solar	5	1	0	0	0.02	1	0.03	-0.01
Unchahar Solar	10	3	0	0	0.00	0	0.07	-0.07
<b>Sub Total (A)</b>	<b>11297</b>	<b>9474</b>	<b>7562</b>	<b>8221</b>	<b>179</b>	<b>7442</b>	<b>181</b>	<b>-3</b>
<b>B. NPC</b>								
NAPS	440	143	164	166	3.42	143	3.43	-0.01
RAPS- B	440	414	439	445	9.53	397	9.94	-0.40
RAPS- C	440	210	230	231	4.94	206	5.04	-0.10
<b>Sub Total (B)</b>	<b>1320</b>	<b>767</b>	<b>833</b>	<b>842</b>	<b>17.90</b>	<b>746</b>	<b>18.41</b>	<b>-0.51</b>
<b>C. NHPC</b>								
Chamera I HPS	540	534	540	540	9.58	399	9.50	0.08
Chamera II HPS	300	300	302	203	6.87	286	6.91	-0.03
Chamera III HPS	231	229	235	130	4.46	186	4.40	0.06
Bairasui HPS	180	180	180	180	4.25	177	4.32	-0.07
Salal-HPS	690	605	662	572	15.06	628	14.52	0.55
Tanakpur-HPS	94	34	31	33	0.85	35	0.81	0.04
Uri-HPS	480	475	477	474	11.56	482	11.40	0.16
Uri-II HPS	240	240	243	249	5.87	245	5.76	0.11
Dhauliganga-HPS	280	132	140	135	3.18	132	3.18	0.00
Dulhasti-HPS	390	387	403	409	9.48	395	9.30	0.18
Sewa-II HPS	120	122	130	131	3.09	129	2.93	0.16
Parbati 3	390	260	272	80	2.42	101	2.33	0.09
<b>Sub Total ©</b>	<b>3935</b>	<b>3498</b>	<b>3615</b>	<b>3136</b>	<b>77</b>	<b>3195</b>	<b>75</b>	<b>1</b>
<b>D. SJVNL</b>								
NJPC	1500	1605	1622	765	23.33	972	22.93	0.39
Rampur HEP	206		211	213	4.55	190	2	2.25
<b>Sub Total (D)</b>	<b>1706</b>	<b>1605</b>	<b>1833</b>	<b>978</b>	<b>27.88</b>	<b>1162</b>	<b>25.23</b>	<b>2.65</b>
<b>E. THDC</b>								
Tehri HPS	1000	390	390	0	5.19	216	5.10	0.09
Koteshwar HPS	400	128	301	90	2.74	114	2.70	0.04
<b>Sub Total (E)</b>	<b>1400</b>	<b>518</b>	<b>691</b>	<b>90</b>	<b>7.92</b>	<b>330</b>	<b>7.80</b>	<b>0.12</b>
<b>F. BBMB</b>								
Bhakra HPS	1514	691	1310	481	16.90	704	16.59	0.31
Dehar HPS	990	452	660	495	12.29	512	10.85	1.44
Pong HPS	396	128	309	126	3.23	135	3.08	0.15
<b>Sub Total (F)</b>	<b>2900</b>	<b>1272</b>	<b>2279</b>	<b>1102</b>	<b>32.42</b>	<b>1351</b>	<b>30.52</b>	<b>1.90</b>
<b>G. IPP(s)/JV(s)</b>								
ADHPL HPS(IPP)	192	0	111	74	1.99	83	1.89	0.11
KWHEP HPS(IPP)	1000	0	613	473	12.39	516	12.70	-0.31
Malana Stg-II HPS	100	0	112	0	0.88	37	0.82	0.06
Shree Cement TPS	300	0	279	283	6.88	287	6.88	-0.01
Budhil HPS(IPP)	70	0	68	68	1.14	47	1.06	0.07
<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1183</b>	<b>898</b>	<b>23.28</b>	<b>970</b>	<b>23.36</b>	<b>-0.08</b>
<b>H. Total Regional Entities (A-G)</b>	<b>24221</b>	<b>17134</b>	<b>17996</b>	<b>15267</b>	<b>364.69</b>	<b>15195</b>	<b>361.99</b>	<b>2.70</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	875	1050	21	883
	Guru Nanak Dev TPS(Bhatinda)	440	180	325	6	238
	Guru Hargobind Singh TPS(L.mbt)	920	503	930	18	734
	Goindwal(GVK)		0	0	0	0
	Rajpura	700	0	0	0	0
	Talwandi Saboo	660	0	0	0.00	0
	Thermal (Total)	<b>3980</b>	<b>1558</b>	<b>2305</b>	<b>45</b>	<b>1855</b>
	Total Hydro	1148	463	570	13.91	579
<b>Total Punjab</b>	<b>5128</b>	<b>2021</b>	<b>2875</b>	<b>58.44</b>	<b>2435</b>	
Haryana	Panipat TPS	1367	216	590	12.13	506
	DCRTPP (Yamuna nagar)	600	502	548	12.60	525
	Faridabad GPS (NTPC)	432	278	341	7.87	328
	RGTPP (khedar) (IPP)	1200	410	0	3.05	127
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	741	1105	21.45	894
	Thermal (Total)	4944	2147	2584	57	2379
	Total Hydro	62	3	7	0.14	6
	<b>Total Haryana</b>	<b>5006</b>	<b>2150</b>	<b>2591</b>	<b>57.24</b>	<b>2385</b>
	Rajasthan	kota TPS	1240	857	867	19.66
suratgarh TPS		1500	889	887	20.92	871
Chabra TPS		750	579	430	12.68	528
Dholpur GPS		330	93	130	2.90	121
Ramgarh GPS		221	27	49	0.51	21
RAPS A (NPC)		300	201	201	4.02	168
Barsingsar (NLC)		250	182	180	4.11	171
Giral LTPS		250	0	0	0.00	0
Rajwest LTPS (IPP)		1080	922	948	22.42	934
VSLP LTPS (IPP)		135	0	0	0.00	0
Kalisindh Thermal		600	0	0	0.00	0
Kawai(Adani)		1320	1187	1169	28.73	1197
Thermal (Total)		7976	4937	4861	116	4831
Total Hydro		550	0	0	0.00	0
Wind power		2191	179	780	11.38	474
Biomass		91	33	33	0.78	33
Solar		201	0	0	0.64	27
Renewable/Others (Total)		2483	212	813	12.80	533
<b>Total Rajasthan</b>	<b>11009</b>	<b>5149</b>	<b>5674</b>	<b>128.75</b>	<b>5364</b>	
UP	Anpara TPS	1630	1548	1473	30.50	1271
	Obra TPS	1288	390	404	8.50	354
	Paricha TPS	1140	836	807	17.40	725
	Panki TPS	210	170	170	3.50	146
	Harduaganj TPS	665	152	177	3.40	142
	Tanda TPS (NTPC)	440	276	291	7.01	292
	Roza TPS (IPP)	1200	1116	1125	26.73	1114
	Anpara-C (IPP)	1200	851	849	20.27	845
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	401	401	8.97	374
	Thermal (Total)	8223	5740	5697	126	5261
	Vishnuparyag HPS (IPP)	400	217	233	5.35	223
	Other Hydro	527	150	243	4.04	168
	Cogeneration	981	50	50	1.20	50
	<b>Total UP</b>	<b>10131</b>	<b>6157</b>	<b>6223</b>	<b>136.86</b>	<b>5480</b>
Uttarakhand	Total Hydro	1303	509	572	13.95	581
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>509</b>	<b>572</b>	<b>13.95</b>	<b>581</b>
Delhi	Rajghat TPS	135	96	106	2.29	95
	Delhi Gas Turbine	282	144	144	3.32	138
	Pragati Gas Turbine	330	138	141	3.35	140
	Rithala GPS	95	0	0	0.00	0
	Bawana GPS	1370	0	221	3.82	159
	Badarpur TPS (NTPC)	705	510	500	11.00	458
	Thermal (Total)	2917	888	1112	23.77	990
	<b>Total Delhi</b>	<b>2917</b>	<b>888</b>	<b>1112</b>	<b>23.77</b>	<b>990</b>
HP	Baspa HPS (IPP)	300	161	151	4.00	167
	Malana HPS (IPP)	86	40	0	0.79	33
	Other Hydro	728	541	524	12.69	529
	<b>Total HP</b>	<b>1114</b>	<b>742</b>	<b>675</b>	<b>17.49</b>	<b>729</b>
J & K	Baglihar HPS (IPP)	450	438	438	10.52	438
	Other Hydro/IPP	436	128	132	3.14	131
	Gas/Diesel/Others	209	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>1094</b>	<b>566</b>	<b>570</b>	<b>13.65</b>	<b>569</b>
<b>Total State Control Area Generation</b>		<b>37702</b>	<b>18182</b>	<b>20292</b>	<b>450.14</b>	<b>18533</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>2548</b>	<b>5023</b>	<b>96.69</b>	<b>4029</b>
<b>Total Regional Availability(Gross)</b>		<b>61923</b>	<b>38726</b>	<b>40582</b>	<b>911.52</b>	<b>37757</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	11233	9254	5853	160.17	6674
State Control Area Hydro	5589	2433	2637	68.53	2632
<b>Total Regional Hydro</b>	<b>16823</b>	<b>11687</b>	<b>8490</b>	<b>228.70</b>	<b>9306</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	100	500	500	50	7.55	0.07	7.49
Gwalior-Agra (D/C)	1082	1848	1876	0	37.17	0.00	37.17
Zerda-Kankroli	-191	-183	0	354	0.00	5.12	-5.12
Zerda-Bhinmal	-148	-164	0	302	0.00	3.84	-3.84
Malanpur-Auraiya	-73	-30	0	96	0.00	0.92	-0.92
Badod-Kota/Morak	-62	-106	0	163	0.00	1.87	-1.87
Mundra-Mohindergarh(HVDC)	2002	2002	2005	0	48.33	0.00	48.33
<b>Sub Total WR</b>	<b>2710</b>	<b>3867</b>			<b>93.06</b>	<b>11.81</b>	<b>81.25</b>
Pusaui Bypass	400	400	400	0	9.67	0.00	9.67
MZP- GKP (D/C)	-178	264	326	226	2.04	0.00	2.04
Patna-Balia(D/C)	-1	284	342	56	4.19	0.00	4.19
B'Sharif-Balia (D/C)	-58	198	238	86	2.27	0.00	2.27
Pusaui-Balia	-122	-60	0	122	0.00	1.90	-1.90
Gaya-Fatehpur (765 Kv)	-191	-51	0	275	0.00	2.38	-2.38
Pusaui-Sahupuri	187	181	227	0	4.41	0.00	4.41
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-34	-29	0	36	0.00	0.81	-0.81
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	-165	-31	12	320	0.00	2.05	-2.05
<b>Sub Total ER</b>	<b>-162</b>	<b>1156</b>			<b>22.58</b>	<b>7.14</b>	<b>15.45</b>
<b>Total IR Exch</b>	<b>2548</b>	<b>5023</b>			<b>115.64</b>	<b>18.95</b>	<b>96.69</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
27.19	1.14	28.33	8.68	-0.21	-3.24	6.99	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
33.77	69.17	102.94	15.45	81.25	96.69	-18.32	12.07	-6.25

**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	1.17	8.42	27.09	66.72	54.46	9.97	8.54	1.21	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				
50.31	18.03	49.65	22.17	49.96	0.13	0.11	50.33	49.80

**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	11:03	399	00:22	0.0	0.0	0.0	0.0
Gorakhpur	400	439	06:07	410	22:17	0.0	0.0	67.3	16.6
Bareilly	400	417	21:02	394	01:11	0.0	0.0	0.0	0.0
Kanpur	400	417	18:03	401	00:20	0.0	0.0	0.0	0.0
Dadri	400	416	18:02	398	00:22	0.0	0.0	0.0	0.0
Ballabgarh	400	425	18:03	402	16:18	0.0	0.0	7.3	0.0
Bawana	400	421	18:04	401	00:07	0.0	0.0	0.0	0.0
Bassi	400	425	18:06	402	00:22	0.0	0.0	8.4	0.0
Hissar	400	420	18:04	394	00:08	0.0	0.0	0.0	0.0
Moga	400	418	18:03	397	00:09	0.0	0.0	0.0	0.0
Abdullapur	400	420	18:03	402	16:18	0.0	0.0	0.0	0.0
Nalagarh	400	419	18:03	401	09:25	0.0	0.0	0.0	0.0
Kishenpur	400	412	17:38	398	14:33	0.0	0.0	0.0	0.0
Wagoora	400	409	17:54	394	20:26	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	775	18:06	740	00:23	0.0	1.3	0.0	0.0
Balia	765	785	06:07	739	22:38	0.0	0.9	0.0	0.0
Moga	765	793	18:03	752	00:30	0.0	0.0	0.0	0.0
Agra	765	798	18:04	757	00:22	0.0	0.0	0.0	0.0
Bhiwani	765	804	18:03	763	00:23	0.0	0.0	2.1	0.0
Unnao	765	762	18:04	732	01:09	0.0	26.2	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	480.26	468.02	475.12	356.29	445.54	595.42
Pong	426.72	384.05	403.33	296.79	399.38	203.01	77.90	56.83
Tehri	829.79	740.04	745.75	29.00	NA	NA	114.04	208.00
Koteshwar	612.50	598.50	610.55	4.95	604.70	2.15	208.00	188.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	206.25	230.88
Rihand	268.22	252.98	258.07	205.10	256.79	149.00	NA	NA
RPS	352.80	343.81	348.06	NA	NA	NA	NA	NA
Jawahar Sagar	298.70	295.78	298.80	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 23.05.2014 :**

Normal weather /Storm in Haryana,Punjab,Delhi,Western part of U.P.

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

0.00

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

1: 400kV Moga-Nakodar line (PSEB) first time charged at 17.31hrs of dt 23.05.2014.

2: 400/220kV 315MVA ICT-1 & 2 first time test charged at 18.31hrs & 18.59hrs of dt 23.05.2014 on no load load at Nakodar (PSEB).

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

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

Report for : 23.05.2014

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER