

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(कार्पोरेशन की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 28.05.2014  
Date of Reporting : 29.05.2014

### 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
39415	2295	41710	49.97	38936	1105	40041	50.16	932.5	57.13

\* 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	49.10	16.38		65.48	81.46	82.27	0.81	147.75	0.00
Haryana	45.89	0.00		45.89	90.66	91.32	0.66	137.21	0.01
Rajasthan	117.20	0.00	11.73	128.93	54.38	57.35	2.97	186.27	2.09
Delhi	18.07			18.07	79.75	81.80	2.04	99.87	0.53
UP	135.10	10.47	1.20	146.77	116.07	118.39	2.32	265.16	51.60
Uttarakhand		13.12		13.12	20.84	21.37	0.53	34.49	1.13
HP		18.72		18.72	6.54	7.00	0.46	25.72	0.07
J & K		13.78	0.00	13.78	17.46	16.94	-0.53	30.71	1.70
Chandigarh				0.00	4.71	5.36	0.66	5.36	0.00
<b>Total</b>	<b>365.36</b>	<b>72.47</b>	<b>12.93</b>	<b>450.75</b>	<b>471.87</b>	<b>481.79</b>	<b>9.92</b>	<b>932.54</b>	<b>57.13</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	6256	0	9	699	6271	0	107	635	15.81
Haryana	6198	0	18	621	5798	0	54	361	10.14
Rajasthan	7384	0	-169	-59	7797	0	130	-131	-1.58
Delhi	4408	90	247	286	3889	0	-23	142	5.19
UP	10749	2030	-229	537	11631	1105	18	1145	18.68
Uttarakhand	1581	75	1	306	1405	0	11	294	6.67
HP	1042	0	-66	-963	867	0	9	-810	-17.27
J&K	1552	100	145	-496	1084	0	-174	-603	-12.72
Chandigarh	246	0	25	0	194	0	16	0	0.27
<b>Total</b>	<b>39415</b>	<b>2295</b>	<b>-19</b>	<b>931</b>	<b>38936</b>	<b>1105</b>	<b>149</b>	<b>1034</b>	<b>25.20</b>

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

### III. Regional Entities :

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

A. NTPC	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
		Singrauli STPS	2000	1725	1865	1837	41.64	1735	41.40
	Rihand I STPS	1000	850	929	907	20.36	848	20.40	-0.04
	Rihand II STPS	1000	821	803	899	19.44	810	19.70	-0.26
	Rihand III STPS	1000	832	803	875	19.37	807	19.94	-0.56
	Dadri I STPS	840	813	831	854	18.56	773	19.35	-0.79
	Dadri II STPS	980	980	951	748	20.25	844	21.02	-0.77
	Unchahar I TPS	420	406	427	377	8.92	372	9.68	-0.76
	Unchahar II TPS	420	404	416	370	9.13	380	9.55	-0.43
	Unchahar III TPS	210	202	216	179	4.58	191	4.77	-0.18
	ISTPP (Jhajjhar)	1500	1000	329	332	9.03	376	9.40	-0.38
	Dadri GPS	830	798	272	379	8.11	338	8.37	-0.26
	Anta GPS	419	391	0	0	0.00	0	0.02	-0.02
	Auraiya GPS	663	421	138	154	3.34	139	3.36	-0.03
	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>9647</b>	<b>7980</b>	<b>7911</b>	<b>183</b>	<b>7614</b>	<b>187</b>	<b>-4</b>
B. NPC	NAPS	440	143	165	164	3.39	141	3.43	-0.04
	RAPS- B	440	401	435	448	9.52	397	9.62	-0.11
	RAPS- C	440	210	227	230	4.92	205	5.04	-0.12
	<b>Sub Total (B)</b>	<b>1320</b>	<b>754</b>	<b>827</b>	<b>842</b>	<b>17.83</b>	<b>743</b>	<b>18.10</b>	<b>-0.27</b>
C. NHPC	Chamera I HPS	540	534	540	540	11.96	498	12.00	-0.04
	Chamera II HPS	300	300	301	304	7.26	302	7.20	0.06
	Chamera III HPS	231	229	229	229	4.78	199	4.75	0.03
	Bairasui HPS	180	180	180	180	4.22	176	4.16	0.06
	Salal-HPS	690	660	673	674	16.04	668	15.84	0.20
	Tanakpur-HPS	94	31	44	32	0.78	33	0.75	0.03
	Uri-HPS	480	475	477	475	11.52	480	11.40	0.12
	Uri-II HPS	240	240	247	246	5.84	243	5.76	0.08
	Dhauliganga-HPS	280	127	137	137	3.24	135	3.04	0.20
	Dulhasti-HPS	390	387	404	390	9.47	394	9.30	0.17
	Sewa-II HPS	120	122	130	130	3.06	128	2.93	0.13
	Parbati 3	390	260	260	100	2.05	85	1.54	0.51
	<b>Sub Total ©</b>	<b>3935</b>	<b>3545</b>	<b>3622</b>	<b>3437</b>	<b>80</b>	<b>3342</b>	<b>79</b>	<b>2</b>
D. SJVNL	NJPC	1500	1605	1478	886	22.42	934	21.94	0.48
	Rampur HEP	206	189	218	209	4.73	197	4.68	0.05
	<b>Sub Total (D)</b>	<b>1706</b>	<b>1794</b>	<b>1696</b>	<b>1095</b>	<b>27.14</b>	<b>1131</b>	<b>26.62</b>	<b>0.52</b>
E. THDC	Tehri HPS	1000	384	387	256	5.15	214	5.10	0.05
	Koteshwar HPS	400	116	303	90	2.52	105	2.50	0.02
	<b>Sub Total (E)</b>	<b>1400</b>	<b>500</b>	<b>690</b>	<b>346</b>	<b>7.67</b>	<b>319</b>	<b>7.60</b>	<b>0.07</b>
F. BBMB	Bhakra HPS	1514	660	1307	483	16.40	683	15.84	0.56
	Dehar HPS	990	490	660	495	12.97	540	11.76	1.21
	Pong HPS	396	114	312	63	3.05	127	2.74	0.31
	<b>Sub Total (F)</b>	<b>2900</b>	<b>1264</b>	<b>2279</b>	<b>1041</b>	<b>32.42</b>	<b>1351</b>	<b>30.34</b>	<b>2.08</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	158	105	2.44	102	2.29	0.14
	KWHEP HPS(IPP)	1000	0	736	397	12.38	516	12.49	-0.11
	Malana Stg-II HPS	100	0	113	35	0.87	36	0.82	0.05
	Shree Cement TPS	300	0	150	145	3.58	149	3.71	-0.13
	Budhil HPS(IPP)	70	0	68	68	1.14	47	1.30	-0.17
	<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1225</b>	<b>750</b>	<b>20.39</b>	<b>850</b>	<b>20.61</b>	<b>-0.22</b>
<b>H. Total Regional Entities (A-G)</b>		<b>24221</b>	<b>17505</b>	<b>18319</b>	<b>15422</b>	<b>368.40</b>	<b>15350</b>	<b>368.99</b>	<b>-0.59</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	22	910
	Guru Nanak Dev TPS(Bhatinda)	440	80	100	2	78
	Guru Hargobind Singh TPS(L.mbt)	920	324	460	10	406
	Goindwal(GVK)		0	0	0	0
	Rajpura	700	647	648	16	652
	Talwandi Saboo	660	0	0	0.00	0
	Thermal (Total)	<b>3980</b>	<b>1926</b>	<b>2258</b>	<b>49</b>	<b>2046</b>
	Total Hydro	1148	623	646	16.38	682
<b>Total Punjab</b>	<b>5128</b>	<b>2549</b>	<b>2904</b>	<b>65.48</b>	<b>2728</b>	
Haryana	Panipat TPS	1367	306	208	6.20	258
	DCRTPP (Yamuna nagar)	600	0	0	0.00	0
	Faridabad GPS (NTPC)	432	373	187	7.06	294
	RGTPP (khedar) (IPP)	1200	568	579	13.04	543
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	554	1103	19.59	816
	Thermal (Total)	4944	1801	2077	46	1912
	Total Hydro	62	0	0	0.00	0
	<b>Total Haryana</b>	<b>5006</b>	<b>1801</b>	<b>2077</b>	<b>45.89</b>	<b>1912</b>
	Rajasthan	kota TPS	1240	1022	1009	23.93
suratgarh TPS		1500	1089	975	25.80	1075
Chabra TPS		750	501	565	13.31	555
Dholpur GPS		330	127	131	3.18	133
Ramgarh GPS		221	67	67	1.55	65
RAPS A (NPC)		300	201	201	4.10	171
Barsingsar (NLC)		250	198	189	3.83	160
Giral LTPS		250	70	66	1.45	60
Rajwest LTPS (IPP)		1080	501	936	20.41	851
VSLP LTPS (IPP)		135	0	0	0.00	0
Kalisindh Thermal		600	0	0	0.00	0
Kawai(Adani)		1320	787	778	19.64	818
Thermal (Total)		7976	4563	4917	117	4883
Total Hydro		550	0	0	0.00	0
Wind power		2191	614	705	10.89	454
Biomass		91	28	28	0.66	28
Solar		201	0	0	0.18	7
Renewable/Others (Total)		2483	642	733	11.73	489
<b>Total Rajasthan</b>		<b>11009</b>	<b>5205</b>	<b>5650</b>	<b>128.93</b>	<b>5372</b>
UP	Anpara TPS	1630	1539	1531	33.00	1375
	Obra TPS	1288	190	358	6.60	275
	Paricha TPS	1140	858	862	17.00	708
	Panki TPS	210	165	170	3.70	154
	Harduaganj TPS	665	449	432	9.50	396
	Tanda TPS (NTPC)	440	361	362	8.86	369
	Roza TPS (IPP)	1200	1116	1123	26.85	1119
	Anpara-C (IPP)	1200	844	835	20.26	844
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	404	401	9.33	389
	Thermal (Total)	8223	5926	6074	135	5629
	Vishnuparyag HPS (IPP)	400	327	257	6.47	270
	Other Hydro	527	206	153	4.00	167
	Cogeneration	981	50	50	1.20	50
	<b>Total UP</b>	<b>10131</b>	<b>6509</b>	<b>6534</b>	<b>146.77</b>	<b>5846</b>
	Uttarakhand	Total Hydro	1303	613	504	13.12
<b>Total Uttarakhand</b>		<b>1303</b>	<b>613</b>	<b>504</b>	<b>13.12</b>	<b>547</b>
Delhi	Rajghat TPS	135	90	84	2.04	85
	Delhi Gas Turbine	282	107	109	2.59	108
	Pragati Gas Turbine	330	136	142	3.40	141
	Rithala GPS	95	0	0	0.00	0
	Bawana GPS	1370	0	0	0.00	0
	Badarpur TPS (NTPC)	705	438	332	10.05	419
	Thermal (Total)	2917	771	667	18.07	753
	<b>Total Delhi</b>	<b>2917</b>	<b>771</b>	<b>667</b>	<b>18.07</b>	<b>753</b>
HP	Baspa HPS (IPP)	300	162	152	4.61	192
	Malana HPS (IPP)	86	91	34	0.96	40
	Other Hydro	728	512	546	13.15	548
	<b>Total HP</b>	<b>1114</b>	<b>765</b>	<b>732</b>	<b>18.72</b>	<b>780</b>
J & K	Baglihar HPS (IPP)	450	444	444	10.64	443
	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>572</b>	<b>576</b>	<b>13.78</b>	<b>574</b>
<b>Total State Control Area Generation</b>		<b>37702</b>	<b>18785</b>	<b>19644</b>	<b>450.75</b>	<b>18512</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>5404</b>	<b>5618</b>	<b>133.64</b>	<b>5568</b>
<b>Total Regional Availability(Gross)</b>		<b>61923</b>	<b>42508</b>	<b>40684</b>	<b>952.79</b>	<b>39430</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	11233	9294	6456	163.12	6797
State Control Area Hydro	5589	2779	2611	72.47	2750
<b>Total Regional Hydro</b>	<b>16823</b>	<b>12073</b>	<b>9067</b>	<b>235.58</b>	<b>9546</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	150	350	0	3.39	0.00	3.39
Gwalior-Agra (D/C)	1686	1688	2094	0	39.48	0.00	39.48
Zerda-Kankroli	-67	-204	0	233	0.00	3.76	-3.76
Zerda-Bhinmal	-39	-168	10	217	0.00	2.64	-2.64
Malanpur-Auraiya	-68	-40	0	70	0.00	0.97	-0.97
Badod-Kota/Morak	-50	-92	0	117	0.00	1.88	-1.88
Mundra-Mohindergarh(HVDC)	2002	1999	2006	0	48.35	0.00	48.35
<b>Sub Total WR</b>	<b>3664</b>	<b>3333</b>			<b>91.22</b>	<b>9.25</b>	<b>81.98</b>
Pusaali Bypass	400	400	400	0	9.45	0.00	9.45
MZP- GKP (D/C)	412	696	788	0	13.04	0.00	13.04
Patna-Balia(D/C)	322	298	484	0	7.74	0.00	7.74
B Sharif-Balia (D/C)	317	602	685	0	12.91	0.00	12.91
Pusaali-Balia	-67	37	63	67	0.27	0.00	0.27
Gaya-Fatehpur (765 Kv)	64	25	147	0	2.01	0.00	2.01
Pusaali-Sahupuri	156	153	175	0	3.58	0.00	3.58
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	0	0	0	0	0.00	0.00	0.00
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	136	74	215	0	2.67	0.00	2.67
<b>Sub Total ER</b>	<b>1740</b>	<b>2285</b>			<b>51.67</b>	<b>0.00</b>	<b>51.67</b>
<b>Total IR Exch</b>	<b>5404</b>	<b>5618</b>			<b>142.89</b>	<b>9.25</b>	<b>133.64</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
32.53	2.07	34.60	9.27	-0.21	0.47	-0.05	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
44.35	77.02	121.36	51.67	81.98	133.64	7.32	4.96	12.28

**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	>50.20	>50.50
0.00	0.74	7.44	23.68	50.38	42.85	18.85	12.85	1.77	0.00

Frequency (Hz)				Average Frequency	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX (Hz)	MIN
Freq	Time	Freq	Time	Hz				
50.32	18.02	49.64	14.12	49.99	0.14	0.12	50.27	49.84

**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	18:28	399	00:08	0.0	0.0	0.0	0.0
Gorakhpur	400	440	06:08	389	23:52	0.0	0.2	59.9	22.2
Bareilly	400	417	07:08	398	14:23	0.0	0.0	0.0	0.0
Kanpur	400	418	06:06	402	22:07	0.0	0.0	0.0	0.0
Dadri	400	414	06:03	397	14:26	0.0	0.0	0.0	0.0
Ballabgarh	400	423	06:03	408	00:07	0.0	0.0	5.7	0.0
Bawana	400	418	06:05	400	14:19	0.0	0.0	0.0	0.0
Bassi	400	427	18:02	408	10:52	0.0	0.0	20.5	0.0
Hissar	400	0	00:00	9999	00:00	0.0	0.0	0.0	0.0
Moga	400	409	18:00	401	15:55	0.0	0.0	0.0	0.0
Abdullapur	400	418	06:05	402	22:09	0.0	0.0	0.0	0.0
Nalagarh	400	418	06:03	398	14:20	0.0	0.0	0.0	0.0
Kishenpur	400	409	17:30	400	20:08	0.0	0.0	0.0	0.0
Wagoora	400	408	04:00	391	20:07	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	06:05	739	22:07	0.0	0.8	0.0	0.0
Balia	765	790	06:06	748	22:09	0.0	0.0	0.0	0.0
Moga	765	0	00:00	9999	00:00	0.0	0.0	0.0	0.0
Agra	765	790	06:05	757	22:07	0.0	0.0	0.0	0.0
Bhiwani	765	798	06:05	766	14:22	0.0	0.0	0.0	0.0
Unnao	765	770	07:11	738	00:10	0.0	8.2	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 (m <sup>3</sup> /s)	Usage (m <sup>3</sup> /s)
Bhakra	513.59	445.62	479.67	454.47	478.86	434.29	484.53	572.68
Pong	426.72	384.05	402.75	281.22	399.60	209.93	60.43	207.90
Tehri	829.79	740.04	743.05	14.17	NA	NA	120.72	182.00
Koteshwar	612.50	598.50	609.79	4.44	599.65	0.30	182.00	167.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	285.12	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 28.05.2014 :**

1. Normal weather 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 : 28.05.2014

पारी प्रभाती अभियंता / SHIFT CHARGE ENGINEER