

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 11.04.2014  
Date of Reporting : 12.04.2014

### 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
35042	2869	37911	50.05	29291	0	29291	50.08	754.5	34.84

\* 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	42.35	6.86		49.20	50.22	49.83	-0.39	99.03	0.08
Haryana	29.14	0.52		29.66	63.46	63.16	-0.30	92.82	0.82
Rajasthan	110.74	1.31	4.30	116.35	40.30	44.70	4.40	161.05	1.53
Delhi	12.70			12.70	55.28	54.68	-0.60	67.38	0.32
UP	118.79	2.97	14.40	136.16	109.25	107.19	-2.05	243.35	29.34
Uttarakhand		9.48		9.48	20.74	21.82	1.08	31.30	0.93
HP		11.47		11.47	12.49	13.20	0.71	24.67	0.13
J & K		12.82	0.00	12.82	22.30	18.47	-3.83	31.29	1.70
Chandigarh				0.00	3.33	3.59	0.26	3.59	0.00
<b>Total</b>	<b>313.72</b>	<b>45.42</b>	<b>18.70</b>	<b>377.84</b>	<b>377.37</b>	<b>376.65</b>	<b>-0.72</b>	<b>754.49</b>	<b>34.84</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	4864	0	-19	-417	3660	0	-6	-208	-6.88
Haryana	5300	277	28	315	3213	0	-33	-305	-3.88
Rajasthan	6676	221	239	-845	6188	0	245	-1149	-14.54
Delhi	3307	110	-41	-82	2016	0	-112	-620	-6.30
UP	10562	2085	173	772	10898	0	-412	1599	22.48
Uttarakhand	1512	75	94	322	1187	0	61	342	8.88
HP	1143	1	35	-249	792	0	18	-119	-4.11
J&K	1491	100	-110	-37	1248	0	-133	-174	-3.76
Chandigarh	187	0	-1	0	90	0	-6	0	0.00
<b>Total</b>	<b>35042</b>	<b>2869</b>	<b>398</b>	<b>-221</b>	<b>29291</b>	<b>0</b>	<b>-379</b>	<b>-635</b>	<b>-8.11</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	1730	1860	1799	41.78	1741	41.53	0.25
Rihand I STPS	1000	925	1002	998	22.26	927	22.19	0.07
Rihand II STPS	1000	945	1026	1018	22.79	950	22.65	0.15
Rihand III STPS	1000	716	471	948	17.03	710	17.19	-0.16
Dadri I STPS	840	800	700	587	16.22	676	16.70	-0.47
Dadri II STPS	980	470	422	465	9.85	410	10.74	-0.89
Unchahar I TPS	420	408	428	375	9.72	405	9.45	0.27
Unchahar II TPS	420	408	421	360	9.54	397	9.28	0.26
Unchahar III TPS	210	204	218	189	4.85	202	4.64	0.21
ISTPP (Jhajjhar)	1500	1000	504	320	9.82	409	10.17	-0.34
Dadri GPS	830	806	372	391	8.87	370	9.45	-0.58
Anta GPS	419	266	258	218	5.78	241	5.73	0.05
Auraiya GPS	663	646	148	158	3.67	153	4.33	-0.66
Dadri Solar	5		0	0	0.00	0		0.00
Unchahar Solar	10		0	0	0.00	0		0.00
<b>Sub Total (A)</b>	<b>11297</b>	<b>9325</b>	<b>7830</b>	<b>7826</b>	<b>182</b>	<b>7591</b>	<b>184</b>	<b>-2</b>
<b>B. NPC</b>								
NAPS	440	294	328	337	6.99	291	6.00	0.99
RAPS- B	440	409	454	455	9.82	409	9.82	0.01
RAPS- C	440	430	460	467	9.95	415	10.32	-0.37
<b>Sub Total (B)</b>	<b>1320</b>	<b>1133</b>	<b>1242</b>	<b>1259</b>	<b>26.77</b>	<b>1116</b>	<b>26.14</b>	<b>0.64</b>
<b>C. NHPC</b>								
Chamera I HPS	540	540	540	0	8.16	340	8.10	0.06
Chamera II HPS	300	300	300	0	3.68	153	3.60	0.07
Chamera III HPS	231	217	154	0	2.21	92	2.15	0.06
Bairasui HPS	180	125	122	122	3.04	126	3.00	0.04
Salal-HPS	690	443	452	446	10.78	449	10.62	0.16
Tanakpur-HPS	94	22	22	30	0.56	23	0.54	0.02
Uri-HPS	480	475	469	475	11.57	482	11.40	0.17
Uri-II HPS	240	178	175	192	4.40	183	4.28	0.12
Dhauliganga-HPS	280	0	0	0	0.00	0	0.00	0.00
Dulhasti-HPS	390	387	405	0	4.09	170	4.00	0.09
Sewa-II HPS	120	122	130	130	3.08	128	2.93	0.15
Parbati 3	390	234	129	257	1.04	44	1.16	-0.11
<b>Sub Total ©</b>	<b>3935</b>	<b>3044</b>	<b>2898</b>	<b>1652</b>	<b>53</b>	<b>2191</b>	<b>52</b>	<b>1</b>
<b>D. SJVNL</b>								
NJPC	1500	1605	406	208	8.95	373	9.00	-0.05
Rampur HEP	206		0	0	0.00	0		0.00
<b>Sub Total (D)</b>	<b>1706</b>	<b>1605</b>	<b>406</b>	<b>208</b>	<b>8.95</b>	<b>373</b>	<b>9.00</b>	<b>-0.05</b>
<b>E. THDC</b>								
Tehri HPS	1000	740	505	0	8.16	340	8.00	0.15
Koteshwar HPS	400	138	397	90	3.33	139	3.30	0.03
<b>Sub Total (E)</b>	<b>1400</b>	<b>878</b>	<b>902</b>	<b>90</b>	<b>11.48</b>	<b>478</b>	<b>11.30</b>	<b>0.18</b>
<b>F. BBMB</b>								
Bhakra HPS	1514	473	915	407	12.08	503	11.35	0.73
Dehar HPS	990	281	495	290	7.38	308	6.76	0.62
Pong HPS	396	11	184	0	0.34	14	0.26	0.09
<b>Sub Total (F)</b>	<b>2900</b>	<b>765</b>	<b>1594</b>	<b>697</b>	<b>19.80</b>	<b>825</b>	<b>18.36</b>	<b>1.44</b>
<b>G. IPP(s)/JV(s)</b>								
ADHPL HPS(IPP)	192	0	144	0	0.62	26	0.60	0.01
KWHEP HPS(IPP)	1000	0	579	150	4.34	181	4.32	0.02
Malana Stg-II HPS	100	0	0	0	0.32	13	0.29	0.03
Shree Cement TPS	300	0	129	127	3.13	130	3.12	0.01
Budhil HPS(IPP)	70	0	35	0	0.04	2	0.58	-0.55
<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>887</b>	<b>277</b>	<b>8.44</b>	<b>352</b>	<b>8.92</b>	<b>-0.48</b>
<b>H. Total Regional Entities (A-G)</b>	<b>24221</b>	<b>16749</b>	<b>15759</b>	<b>12009</b>	<b>310.22</b>	<b>12926</b>	<b>309.50</b>	<b>0.71</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	840	690	17.29	720
	Guru Nanak Dev TPS(Bhatinda)	440	120	120	2.52	105
	Guru Hargobind Singh TPS(L.mbt)	920	673	569	14.20	592
	Goindwal(GVK)		0	0	0.00	0
	Rajpura	700	659	289	8.34	347
	Talwandi Saboo	660	0	0	0.00	0
	Thermal (Total)	3980	2292	1668	42.35	1764
	Total Hydro	1148	298	265	6.86	286
<b>Total Punjab</b>	<b>5128</b>	<b>2590</b>	<b>1933</b>	<b>49.20</b>	<b>2050</b>	
Haryana	Panipat TPS	1367	224	214	5.30	221
	DCRTPP (Yamuna nagar)	600	272	93	5.49	229
	Faridabad GPS (NTPC)	432	358	282	7.87	328
	RGTPP (khedar) (IPP)	1200	0	0	0.00	0
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	470	369	10.49	437
	Thermal (Total)	4944	1324	958	29.14	1214
	Total Hydro	62	22	21	0.52	22
	<b>Total Haryana</b>	<b>5006</b>	<b>1346</b>	<b>979</b>	<b>29.66</b>	<b>1236</b>
	Rajasthan	kota TPS	1240	982	1167	24.68
suratgarh TPS		1500	1115	1112	26.52	1105
Chabra TPS		750	425	420	10.50	438
Dholpur GPS		330	111	86	3.03	126
Ramgarh GPS		221	92	92	2.31	96
RAPS A (NPC)		300	175	175	4.08	170
Barsingsar (NLC)		250	194	193	4.43	185
Giral LTPS		250	55	0	0.76	32
Rajwest LTPS (IPP)		1080	929	941	22.37	932
VSLP LTPS (IPP)		135	0	0	0.00	0
Kalisindh Thermal		600	0	0	0.00	0
Kawai(Adani)		1320	513	601	12.06	503
Thermal (Total)		7976	4591	4787	110.74	4614
Total Hydro		550	162	16	1.31	55
Wind power		2191	43	227	3.16	132
Biomass		91	24	24	0.57	24
Solar		201	0	0	0.57	24
Renewable/Others (Total)	2483	67	251	4.30	179	
<b>Total Rajasthan</b>	<b>11009</b>	<b>4820</b>	<b>5054</b>	<b>116.35</b>	<b>4848</b>	
UP	Anpara TPS	1630	1348	1363	29.80	1242
	Obra TPS	1288	424	421	9.00	375
	Paricha TPS	1140	367	364	7.60	317
	Panki TPS	210	85	85	1.80	75
	Harduaganj TPS	665	353	403	8.10	338
	Tanda TPS (NTPC)	440	372	385	8.81	367
	Roza TPS (IPP)	1200	864	1116	22.36	932
	Anpara-C (IPP)	1200	1044	1080	23.72	988
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	280	401	7.61	317
	Thermal (Total)	8223	5137	5618	118.79	4950
	Vishnuparyag HPS (IPP)	400	0	0	0.00	0
	Other Hydro	527	149	138	2.97	124
	Cogeneration	981	600	600	14.40	600
	<b>Total UP</b>	<b>10131</b>	<b>5886</b>	<b>6356</b>	<b>136.16</b>	<b>5673</b>
	Uttarakhand	Total Hydro	1303	442	361	9.48
<b>Total Uttarakhand</b>		<b>1303</b>	<b>442</b>	<b>361</b>	<b>9.48</b>	<b>395</b>
Delhi	Rajghat TPS	135	0	0	0.00	0
	Delhi Gas Turbine	282	77	80	1.74	73
	Pragati Gas Turbine	330	143	149	3.46	144
	Rithala GPS	95	0	0	0.00	0
	Bawana GPS	1370	0	0	0.00	0
	Badarpur TPS (NTPC)	705	340	355	7.50	313
	Thermal (Total)	2917	560	584	12.70	529
	<b>Total Delhi</b>	<b>2917</b>	<b>560</b>	<b>584</b>	<b>12.70</b>	<b>529</b>
HP	Baspa HPS (IPP)	300	52	0	1.09	45
	Malana HPS (IPP)	86	44	0	0.40	17
	Other Hydro	728	418	402	9.98	416
	<b>Total HP</b>	<b>1114</b>	<b>514</b>	<b>402</b>	<b>11.47</b>	<b>478</b>
J & K	Baglihar HPS (IPP)	450	440	436	10.52	438
	Other Hydro/IPP	436	73	132	2.30	96
	Gas/Diesel/Others	209	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>1094</b>	<b>513</b>	<b>568</b>	<b>12.82</b>	<b>534</b>
<b>Total State Control Area Generation</b>		<b>37702</b>	<b>16671</b>	<b>16237</b>	<b>377.84</b>	<b>15743</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>4313</b>	<b>3364</b>	<b>93.54</b>	<b>3897</b>
<b>Total Regional Availability(Gross)</b>		<b>61923</b>	<b>36743</b>	<b>31610</b>	<b>781.59</b>	<b>32566</b>

rsd 600.00  
shanan 110.00  
ubdc 93.00  
mukera 205.00  
anandpur sahib 135.00

10 magpie  
7.5 pnr  
15 cpp

864.00  
506.00

#### IV. Total Hydro Generation:

Regional Entities Hydro	11233	6523	2797	98.10	4087
State Control Area Hydro	5589	2100	1771	45.42	1892
<b>Total Regional Hydro</b>	<b>16823</b>	<b>8623</b>	<b>4568</b>	<b>143.52</b>	<b>5980</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	350	500	0	9.69	0.00	9.69
Gwalior-Agra (D/C)	1673	1624	1852	0	39.41	0.00	39.41
Zerda-Kankroli	-123	-397	0	316	0.00	5.03	-5.03
Zerda-Bhinmal	-91	-258	0	318	0.00	3.94	-3.94
Malanpur-Auraiya	-46	-28	0	66	0.00	0.89	-0.89
Badod-Kota/Morak	-36	-110	0	121	0.00	1.83	-1.83
Mundra-Mohindergarh(HVDC)	2000	1996	2007	0	48.34	0.00	48.34
<b>Sub Total WR</b>	<b>3877</b>	<b>3177</b>			<b>97.44</b>	<b>11.70</b>	<b>85.75</b>
Pusaui Bypass	300	400	400	0	8.28	0.00	8.28
MZP- GKP (D/C)	4	-50	92	120	0.00	0.35	-0.35
Patna-Balia(D/C)	225	115	343	0	4.03	0.00	4.03
B'Sharif-Balia (D/C)	94	33	201	0	0.55	0.00	0.55
Pusaui-Balia	-132	-140	0	149	0.00	2.89	-2.89
Gaya-Fatehpur (765 Kv)	-114	-222	0	222	0.00	2.85	-2.85
Pusaui-Sahupuri	164	187	187	0	3.75	0.00	3.75
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)	-105	-136	23	153	0.00	2.73	-2.73
<b>Sub Total ER</b>	<b>436</b>	<b>187</b>			<b>16.61</b>	<b>8.82</b>	<b>7.79</b>
<b>Total IR Exch</b>	<b>4313</b>	<b>3364</b>			<b>114.05</b>	<b>20.52</b>	<b>93.54</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
33.67	0.29	33.96	7.88	-0.51	-20.22	-1.76	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
21.61	60.44	82.05	7.79	85.75	93.54	-13.82	25.31	11.48

**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	0.35	7.16	29.86	67.29	54.24	10.56	8.01	0.00	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				
50.19	17.04	49.67	22.08	49.95	0.11	0.09	50.19	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	400	00:46	397	05:51	27.8	27.8	0.0	0.0
Gorakhpur	400	434	13:00	408	19:12	0.0	0.0	70.3	10.3
Bareilly	400	419	13:04	404	19:11	0.0	0.0	0.0	0.0
Kanpur	400	416	08:03	400	19:10	0.0	0.0	0.0	0.0
Dadri	400	420	23:56	405	10:43	0.0	0.0	0.0	0.0
Ballabgarh	400	431	03:15	410	19:12	0.0	0.0	44.1	1.3
Bawana	400	427	02:54	407	19:05	0.0	0.0	29.9	0.0
Bassi	400	433	03:29	416	10:19	0.0	0.0	83.2	10.8
Hissar	400	417	01:44	396	19:04	0.0	0.0	0.0	0.0
Moga	400	419	02:59	397	19:04	0.0	0.0	0.0	0.0
Abdullapur	400	426	00:20	406	19:05	0.0	0.0	27.8	0.0
Nalagarh	400	424	02:54	402	19:03	0.0	0.0	18.5	0.0
Kishenpur	400	421	03:21	396	19:26	0.0	0.0	0.3	0.0
Wagoora	400	409	03:48	361	20:23	10.2	30.5	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	773	07:33	736	19:13	0.0	1.1	0.0	0.0
Balia	765	777	13:02	730	19:11	0.0	3.7	0.0	0.0
Moga	765	798	03:16	757	19:08	0.0	0.0	0.0	0.0
Agra	765	803	02:01	772	19:11	0.0	0.0	6.8	0.0
Bhiwani	765	807	03:15	771	19:09	0.0	0.0	18.6	0.0
Unnao	765	760	17:07	732	19:10	0.0	6.9	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	481.87	503.43	478.06	414.26	480.39	342.58
Pong	426.72	384.05	402.01	266.33	400.08	223.85	86.42	22.77
Tehri	829.79	740.04	772.90	238.00	818.65	982.26	77.02	216.00
Koteshwar	612.50	598.50	610.92	4.95	612.40	5.73	196.00	208.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	81.53	107.03
Rihand	268.22	252.98	259.45	274.80	258.99	250.70	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	514.74	144.00	506.85	144.00	224.78	127.17

\* NA: Not Available

**X. System Constraints:**

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

**XII. Weather Conditions For 11.04.2014 :**

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 :**

Vishnuprayag (400MW) and Dhauliganga (280MW) are out of operation since 16.06.2013.

Civil construction is in progress for rectification of the major damages in Plants/Dam caused due to flood Vishnuprayag and Dhauliganga expected by April, 2014 .

Report for : 11.04.2014

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER