

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिस्टम की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 14.10.2013

Date of Reporting : 15.10.2013

### 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
34404	2123	36528	25.03	26296	70	26366	50.32	705.4	25.50

\* 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	34.50	9.45		43.95	59.49	63.28	3.78	107.23	0.00
Haryana	43.30	0.51		43.81	57.42	56.86	-0.56	100.67	0.47
Rajasthan	51.73	7.87	7.06	66.66	78.29	76.47	-1.81	143.13	0.00
Delhi	19.08			19.08	56.02	57.72	1.69	76.79	0.00
UP	101.05	2.71	1.70	105.46	86.49	85.18	-1.31	190.64	23.33
Uttarakhand		14.74		14.74	13.78	14.68	0.90	29.42	0.00
HP		12.51		12.51	7.94	9.81	1.87	22.52	0.00
J & K		13.60	0.00	13.60	16.98	17.55	0.58	31.15	1.70
Chandigarh				0.00	3.97	4.02	0.05	4.02	0.00
<b>Total</b>	<b>249.65</b>	<b>61.38</b>	<b>8.76</b>	<b>319.80</b>	<b>380.37</b>	<b>385.56</b>	<b>5.19</b>	<b>705.36</b>	<b>25.50</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	5269	0	-8	618	3842	0	187	401	14.33	
Haryana	5312	93	-120	-437	3638	0	48	-493	-11.33	
Rajasthan	6887	0	292	1364	5438	0	-251	1428	33.68	
Delhi	3763	0	49	-259	2465	0	1	-710	-8.59	
UP	8856	1930	-417	807	8077	70	-259	1569	12.41	
Uttarakhand	1356	0	-9	225	1056	0	-74	175	4.79	
HP	1125	0	27	-607	678	0	155	-290	-7.66	
J&K	1629	100	9	19	983	0	5	-274	-1.88	
Chandigarh	207	0	11	-46	119	0	-21	0	-0.13	
<b>Total</b>	<b>34404</b>	<b>2123</b>	<b>-164</b>	<b>1683</b>	<b>26296</b>	<b>70</b>	<b>-210</b>	<b>1808</b>	<b>35.62</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	1936	2058	1620	44.40	1850	44.52
	Rihand I STPS	1000	818	601	708	15.31	638	17.31	-2.00
	Rihand II STPS	1000	773	640	637	14.05	585	15.07	-1.02
	Rihand III STPS	500	415	306	372	8.26	344	9.17	-0.92
	Dadri I STPS	840	810	646	459	12.43	518	12.73	-0.30
	Dadri II STPS	980	975	942	706	19.43	809	19.64	-0.22
	Unchahar I TPS	420	201	175	155	3.55	148	3.60	-0.05
	Unchahar II TPS	420	404	375	317	7.19	300	7.25	-0.06
	Unchahar III TPS	210	202	170	154	3.48	145	3.51	-0.03
	ISTPP (Jhajjar)	1500	1480	802	642	14.68	612	14.99	-0.31
	Dadri GPS	830	805	189	191	4.39	183	4.67	-0.29
	Anta GPS	419	401	0	0	0.00	0	0.00	0.00
	Auraiya GPS	663	626	154	157	3.56	148	3.64	-0.08
	<b>Sub Total (A)</b>	<b>10782</b>	<b>9844</b>	<b>7058</b>	<b>6118</b>	<b>150.72</b>	<b>6280</b>	<b>156.11</b>	<b>-5.39</b>
B. NPC	NAPS	440	155	153	154	3.04	127	5.26	-2.22
	RAPS- B	440	408	451	452	9.72	405	9.79	-0.07
	RAPS- C	440	410	469	467	10.02	417	9.84	0.18
	<b>Sub Total (B)</b>	<b>1320</b>	<b>973</b>	<b>1073</b>	<b>1073</b>	<b>22.78</b>	<b>949</b>	<b>24.89</b>	<b>-2.11</b>
C. NHPC	Chamera I HPS	540	539	540	0	4.64	194	4.59	0.05
	Chamera II HPS	300	300	209	0	2.70	112	2.80	-0.11
	Chamera III HPS	231	231	154	0	1.87	78	1.92	-0.06
	Bairasuil HPS	180	122	120	0	1.10	46	1.07	0.02
	Salal-HPS	690	352	505	350	8.53	355	8.45	0.08
	Tanakpur-HPS	94	63	82	61	1.58	66	1.51	0.07
	Uri-HPS	480	144	237	57	3.52	147	3.29	0.24
	Uri-II HPS	240		122	70	2.19	91		2.19
	Dhauliganga-HPS	280	0	0	0	0.00	0	0.00	0.00
	Dulhasti-HPS	390	364	407	274	8.93	372	8.72	0.22
	Sewa-II HPS	120	119	81	0	0.82	34	0.81	0.01
	<b>Sub Total (C)</b>	<b>3545</b>	<b>2234</b>	<b>2457</b>	<b>812</b>	<b>35.87</b>	<b>1495</b>	<b>33.15</b>	<b>2.71</b>
D. NJPC	Nathpa Jhakri	1500	1605	1600	321	17.89	745	18.09	-0.20
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>1600</b>	<b>321</b>	<b>17.89</b>	<b>745</b>	<b>18.09</b>	<b>-0.20</b>
E. THDC	Tehri HPS	1000	1060	1066	0	10.16	423	10.00	0.16
	Koteshwar HPS	400	342	300	100	3.36	140	3.30	0.06
	<b>Sub Total (E)</b>	<b>1400</b>	<b>1402</b>	<b>1366</b>	<b>100</b>	<b>13.52</b>	<b>563</b>	<b>13.30</b>	<b>0.22</b>
F. BBMB	Bhakra HPS	1497	460	1043	338	11.14	464	11.05	0.09
	Dehar HPS	990	327	660	330	7.84	327	7.85	-0.01
	Pong HPS	396	221	312	126	5.47	228	5.31	0.16
	<b>Sub Total (F)</b>	<b>2883</b>	<b>1009</b>	<b>2015</b>	<b>794</b>	<b>24.45</b>	<b>1019</b>	<b>24.21</b>	<b>0.24</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	104	26	1.11	46	1.07	0.04
	KWHEP HPS(IPP)	1000	0	778	233	9.24	385	9.83	-0.59
	Malana Stg-II HPS	100	0	58	0	0.57	24	0.52	0.05
	Shree Cement TPS	300	0	243	12	4.21	175	4.28	-0.07
	Budhil HPS(IPP)	70	0	25	25	0.43	18	0.59	-0.16
	<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1208</b>	<b>396</b>	<b>15.56</b>	<b>648</b>	<b>16.29</b>	<b>-0.73</b>
<b>H. Total Regional Entities (A-G)</b>		<b>23092</b>	<b>17066</b>	<b>16777</b>	<b>9614</b>	<b>280.78</b>	<b>11699</b>	<b>286.04</b>	<b>-5.26</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	1050	860	20.13	839
	Guru Nanak Dev TPS(Bhatinda)	440	232	200	4.53	189
	Guru Hargobind Singh TPS(L.mbt)	920	470	393	9.84	410
	Goindwal(GVK)		0	0	0.00	0
	Thermal (Total)	2620	1752	1453	34.50	1438
	Total Hydro	1148	434	336	9.45	394
	<b>Total Punjab</b>	<b>3768</b>	<b>2186</b>	<b>1789</b>	<b>43.95</b>	<b>1831</b>
Haryana	Panipat TPS	1367	346	75	3.73	155
	DCRTPP (Yamuna nagar)	600	555	505	12.35	515
	Faridabad GPS (NTPC)	432	162	162	4.14	173
	RGTPP (khedar) (IPP)	1200	519	467	11.99	500
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	557	372	11.09	462
	Thermal (Total)	4944	2139	1581	43.30	1804
	Total Hydro	62	24	21	0.51	21
	<b>Total Haryana</b>	<b>5006</b>	<b>2163</b>	<b>1602</b>	<b>43.81</b>	<b>1825</b>
	Rajasthan	kota TPS	1240	756	697	17.90
suratgarh TPS		1500	656	590	14.62	609
Chabra TPS		500	0	0	0.00	0
Dholpur GPS		330	68	97	1.93	80
Ramgarh GPS		111	76	83	2.63	110
RAPS A (NPC)		300	179	179	4.01	167
Barsingsar (NLC)		250	112	110	2.56	107
Giral LTPS		250	0	0	0.00	0
Rajwest LTPS (IPP)		1080	402	255	8.09	337
VSLP LTPS (IPP)		135	0	0	0.00	0
Kalisindh Thermal		600	0	0	0.00	0
Kawai(Adani)		660	0	0	0.00	0
Thermal (Total)		6956	2249	2011	51.73	2155
Total Hydro		550	353	307	7.87	328
Wind power		2191	142	264	4.63	193
Biomass		91	26	26	0.67	28
Solar		201	0	0	1.76	73
Renewable/Others (Total)		2483	168	290	7.06	294
<b>Total Rajasthan</b>		<b>9989</b>	<b>2770</b>	<b>2608</b>	<b>66.66</b>	<b>2778</b>
UP		Anpara TPS	1630	1227	964	28.10
	Obra TPS	1288	370	391	10.30	429
	Paricha TPS	1140	652	631	15.30	638
	Panki TPS	210	0	0	0.00	0
	Harduaganj TPS	665	209	297	5.00	208
	Tanda TPS (NTPC)	440	296	240	7.02	292
	Roza TPS (IPP)	1200	806	639	15.22	634
	Anpara-C (IPP)	1200	1055	738	20.12	838
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	0	0	0.00	0
	Thermal (Total)	8223	4615	3900	101.05	4210
	Vishnuparyag HPS (IPP)	400	0	0	0.00	0
	Other Hydro	527	138	92	2.71	113
	Cogeneration	981	70	70	1.70	71
	<b>Total UP</b>	<b>10131</b>	<b>4823</b>	<b>4062</b>	<b>105.46</b>	<b>4394</b>
Uttarakhand	Total Hydro	1303	661	638	14.74	614
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>661</b>	<b>638</b>	<b>14.74</b>	<b>614</b>
Delhi	Rajghat TPS	135	54	0	0.56	23
	Delhi Gas Turbine	282	108	78	2.16	90
	Pragati Gas Turbine	330	298	266	6.73	280
	Riithala GPS	95	0	0	0.00	0
	Bawana GPS	686	0	0	0.00	0
	Badarpur TPS (NTPC)	705	460	415	9.63	401
	Thermal (Total)	2232	920	759	19.08	795
<b>Total Delhi</b>	<b>2232</b>	<b>920</b>	<b>759</b>	<b>19.08</b>	<b>795</b>	
HP	Baspa HPS (IPP)	330	173	0	2.98	124
	Malana HPS (IPP)	86	82	0	0.55	23
	Other Hydro	589	369	363	8.98	374
	<b>Total HP</b>	<b>1005</b>	<b>624</b>	<b>363</b>	<b>12.51</b>	<b>521</b>
J & K	Baglihar HPS (IPP)	450	432	438	10.46	436
	Other Hydro	323	128	132	3.14	131
	Gas/Diesel/Others	183	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>956</b>	<b>560</b>	<b>570</b>	<b>13.60</b>	<b>566</b>
<b>Total State Control Area Generation</b>		<b>34390</b>	<b>14707</b>	<b>12391</b>	<b>319.80</b>	<b>13325</b>
<b>J. Net Inter Regional Exchange</b> [Import (+ve)/Export (-ve)]			<b>3885</b>	<b>5019</b>	<b>112.14</b>	<b>4672</b>
<b>Total Regional Availability(Gross)</b>		<b>57482</b>	<b>35369</b>	<b>27024</b>	<b>712.71</b>	<b>29696</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	10620	8378	2286	102.65	4277
State Control Area Hydro	5368	2794	2327	61.38	2558
<b>Total Regional Hydro</b>	<b>15988</b>	<b>11172</b>	<b>4613</b>	<b>164.03</b>	<b>6835</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	-300	0	450	0.00	5.87	-5.87
Gwalior-Agra (D/C)	738	1316	1588	0	27.82	0.00	27.82
Zerda-Kankroli	76	-91	76	152	0.00	1.35	-1.35
Zerda-Bhinmal	130	-18	155	93	0.28	0.00	0.28
Malanpur-Auraiya	-78	-53	0	118	0.00	1.62	-1.62
Badod-Kota/Morak	98	66	140	0	2.11	0.00	2.11
Mundra-Mohindergarh(HVDC)	1202	1500	1502	0	30.05	0.00	30.05
<b>Sub Total WR</b>	<b>2066</b>	<b>2420</b>			<b>60.26</b>	<b>8.84</b>	<b>51.42</b>
Pusauli Bypass	100	100	100	0	2.42	0.00	2.42
MZP- GKP (D/C)	772	1078	1306	0	25.64	0.00	25.64
Patna-Balia(D/C)	342	667	730	0	14.52	0.00	14.52
B'Sharif-Balia (D/C)	322	655	838	0	14.31	0.00	14.31
Pusauli-Balia	-12	120	128	12	1.62	0.00	1.62
Gaya-Fatehpur (765 Kv)	209	0	344	0	1.37	0.00	1.37
Pusauli-Sahupuri	120	14	120	0	1.59	0.00	1.59
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-34	-35	0	36	0.00	0.75	-0.75
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>1819</b>	<b>2599</b>			<b>61.47</b>	<b>0.75</b>	<b>60.72</b>
<b>Total IR Exch</b>	<b>3885</b>	<b>5019</b>			<b>121.73</b>	<b>9.59</b>	<b>112.14</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
32.38	1.91	34.29	8.70	-2.51	5.58	9.73	0.54	-0.54

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
49.11	57.05	106.15	60.72	51.42	112.14	11.61	-5.63	5.98

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

<48.80	<49.0	<49.20	<49.50	<49.7	49.5 - 50.2	49.7-49.8	49.7 - 50.2	> 50.00	> 50.2
0.00	0.00	0.00	0.40	0.70	87.70	1.00	87.40	70.60	11.90

<----- Frequency (Hz) ----->				Average Frequency Hz	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX (Hz)	MIN (Hz)
Freq	Time	Freq	Time	Hz	Index			
50.48	7.07	49.28	18.11	50.06	0.20	0.13	50.43	0.00

**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	415	02:55	407	12:12	0.0	0.0	0.0	0.0
Gorakhpur	400	425	07:05	411	00:00	0.0	0.0	15.6	0.0
Bareilly	400	420	17:34	399	12:35	0.0	0.0	0.0	0.0
Kanpur	400	421	04:00	407	12:32	0.0	0.0	0.4	0.0
Dadri	400	425	03:12	404	12:38	0.0	0.0	14.6	0.0
Ballabgarh	400	430	04:01	408	12:38	0.0	0.0	32.5	0.0
Bawana	400	427	03:06	406	12:41	0.0	0.0	30.5	0.0
Bassi	400	431	04:00	404	18:48	0.0	0.0	32.7	0.3
Hissar	400	416	06:06	400	12:53	0.0	0.0	0.0	0.0
Moga	400	424	01:39	403	18:12	0.0	0.0	13.9	0.0
Abdullapur	400	424	01:40	402	12:14	0.0	0.0	17.9	0.0
Nalagarh	400	429	00:44	408	18:11	0.0	0.0	30.8	0.0
Kishenpur	400	428	03:12	404	19:11	0.0	0.0	17.2	0.0
Wagoora	400	427	03:14	391	19:11	0.0	0.0	15.0	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	754	03:54	729	12:32	0.0	26.4	0.0	0.0
Balia	765	767	07:04	741	00:02	0.0	0.1	0.0	0.0
Moga	765	802	03:26	762	18:11	0.0	0.0	0.8	0.0
Agra	765	803	03:25	771	18:10	0.0	0.0	3.0	0.0
Bhiwani	765	813	03:26	775	12:30	0.0	0.0	56.2	0.0
Unnao	765	764	17:32	739	12:32	0.0	2.7	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	510.90	1590.18	503.81	1258.87	392.00	314.88
Pong	426.72	384.05	422.08	990.81	421.68	961.02	225.29	284.24
Tehri	829.79	740.04	824.95	1101.00	818.65	982.26	140.35	154.00
Koteshwar	612.50	598.50	610.65	4.80	609.05	NA	154.00	159.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	128.89	120.10
Rihand	268.22	252.98	261.15	369.40	264.08	550.30	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	518.63	144.00	520.35	144.00	134.00	138.00

\* NA: Not Available

**X. System Constraints:**

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

**XII. Weather Conditions For 14.10.2013 :**

1. Rains in East UP , Rest is normal.

**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 Dec, 2013 .