

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 10.02.2013  
Date of Reporting : 11.02.2013

### I. Regional Availability/Demand:

Evening Peak (19:00 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
30391	2310	32701	50.25	25640	630	26270	50.23	691.5	48.45

\* 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:

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	32.35	8.84		41.18	41.71	42.50	0.79	83.68	1.80
Haryana	42.12	0.33		42.44	47.40	45.07	-2.33	87.52	0.00
Rajasthan	85.16	2.69	6.44	94.29	73.45	71.09	-2.36	165.38	0.00
Delhi	26.91			26.91	31.84	28.52	-3.32	55.43	0.00
UP	111.29	6.21	19.20	136.70	73.07	71.98	-1.10	208.68	44.06
Uttarakhand		10.43		10.43	19.68	18.32	-1.35	28.75	0.87
HP		5.78		5.78	17.77	16.06	-1.72	21.83	0.01
J & K		6.98	0.00	6.98	34.73	30.01	-4.73	36.99	1.70
Chandigarh				0.00	3.55	3.20	-0.35	3.20	0.00
<b>Total</b>	<b>297.83</b>	<b>41.25</b>	<b>25.64</b>	<b>364.72</b>	<b>343.20</b>	<b>326.74</b>	<b>-16.46</b>	<b>691.46</b>	<b>48.45</b>

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

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

State	Evening Peak (19:00 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	
Punjab	4139	600	10	-129	2782	0	5	183	2.11
Haryana	4291	0	-204	-23	2792	0	-64	-790	-9.94
Rajasthan	6110	0	-617	1020	6503	0	-45	1032	31.84
Delhi	2819	0	153	-1164	1355	0	-103	-1791	-33.47
UP	8683	1610	-419	-5	8737	630	-86	-70	-2.63
Uttarakhand	1483	0	28	501	1119	0	-90	513	11.21
HP	957	0	-121	163	742	0	30	381	6.59
J&K	1738	100	-232	401	1521	0	-199	477	10.14
Chandigarh	171	0	-38	-14	89	0	-11	-30	-0.41
<b>Total</b>	<b>30391</b>	<b>2310</b>	<b>-1440</b>	<b>751</b>	<b>25640</b>	<b>630</b>	<b>-563</b>	<b>-94</b>	<b>15.44</b>

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

### III. Regional Entities :

Entity	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
A. NTPC	Singrauli STPS	2000	1605	2052	1578	38.71	1613	38.53	0.18
	Rihand I STPS	1000	925	985	899	21.53	897	21.76	-0.23
	Rihand II STPS	1000	975	1019	919	22.31	930	22.66	-0.34
	Rihand III STPS	500	485	497	408	11.09	462	11.21	-0.12
	Dadri I STPS	840	810	625	621	15.53	647	16.43	-0.91
	Dadri II STPS	980	975	956	330	19.39	808	21.11	-1.72
	Unchahar I TPS	420	407	383	302	8.65	361	8.80	-0.14
	Unchahar II TPS	420	405	338	151	8.18	341	8.21	-0.04
	Unchahar III TPS	210	202	173	374	4.10	171	4.14	-0.04
	ISTPP (Jhajjar)	1500	980	366	360	8.79	366	9.19	-0.40
	Dadri GPS	830	831	353	206	8.46	352	8.52	-0.07
	Anta GPS	419	423	232	206	4.94	206	5.13	-0.19
	Auraiva GPS	663	665	323	299	7.16	299	6.92	0.25
	<b>Sub Total (A)</b>	<b>10782</b>	<b>9688</b>	<b>8302</b>	<b>6653</b>	<b>178.85</b>	<b>7452</b>	<b>182.61</b>	<b>-3.76</b>
B. NPC	NAPS	440	307	340	343	7.34	306	7.37	-0.03
	RAPS- B	440	426	468	972	10.26	427	10.22	0.03
	RAPS- C	440	430	472	478	10.21	425	10.32	-0.11
	<b>Sub Total (B)</b>	<b>1320</b>	<b>1163</b>	<b>1280</b>	<b>1793</b>	<b>27.80</b>	<b>1158</b>	<b>27.91</b>	<b>-0.12</b>
C. NHPC	Chamera I HPS	540	550	540	0	2.70	113	2.70	0.00
	Chamera II HPS	300	204	0	0	1.57	65	1.62	-0.05
	Chamera III HPS	231	154	138	0	0.87	36	0.85	0.02
	Bairasuil HPS	180	182	60	20	0.76	32	0.76	-0.01
	Salal-HPS	690	167	311	130	4.01	167	4.08	-0.07
	Tanakpur-HPS	94	31	45	31	0.77	32	0.76	0.01
	Uri-HPS	480	329	346	253	7.27	303	7.27	-0.01
	Dhauliganga-HPS	280	210	211	0	0.90	37	0.93	-0.03
	Dulhasti-HPS	390	0	0	0	0.00	0	0.00	0.00
	Sewa-II HPS	120	80	84	29	1.71	71	1.77	-0.06
	<b>Sub Total (C)</b>	<b>3305</b>	<b>1906</b>	<b>1735</b>	<b>463</b>	<b>20.55</b>	<b>856</b>	<b>20.75</b>	<b>-0.20</b>
	D.NJPC	Natpda Jhakri	1500	1085	1013	0	5.63	235	5.74
<b>Sub Total (D)</b>		<b>1500</b>	<b>1085</b>	<b>1013</b>	<b>0</b>	<b>5.63</b>	<b>235</b>	<b>5.74</b>	<b>-0.11</b>
E. THDC	Tehri HPS	1000	900	906	0	5.82	242	5.80	0.02
	Koteshwar HPS	400	100	100	99	2.20	92	2.40	-0.20
	<b>Sub Total (E)</b>	<b>1400</b>	<b>1000</b>	<b>1006</b>	<b>99</b>	<b>8.02</b>	<b>334</b>	<b>8.20</b>	<b>-0.18</b>
F. BBMB	Bhakra HPS	1480	536	950	355	13.20	550	12.86	0.34
	Dehar HPS	990	152	495	0	3.69	154	3.65	0.04
	Pong HPS	396	171	312	0	4.25	177	5.01	-0.76
	<b>Sub Total (F)</b>	<b>2866</b>	<b>859</b>	<b>1757</b>	<b>355</b>	<b>21.14</b>	<b>881</b>	<b>21.52</b>	<b>-0.38</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	0	0	0.32	13	0.26	0.06
	KWHEP HPS(IPP)	1000	0	0	0	0.00	0	2.76	-2.76
	Malana Stg-II HPS	100	0	35	30	0.15	6	0.13	0.02
	Shree Cement TPS	300	0	269	250	6.35	265	6.39	-0.04
	Budhil HPS(IPP)	70	0	0	0	0.00	0	0.00	0.00
	<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>304</b>	<b>280</b>	<b>6.82</b>	<b>284</b>	<b>9.55</b>	<b>-2.73</b>
<b>H. Total Regional Entities (A-G)</b>	<b>22836</b>	<b>15701</b>	<b>15397</b>	<b>9643</b>	<b>268.80</b>	<b>11200</b>	<b>276.29</b>	<b>-7.49</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	680	663	15.43	643
	Guru Nanak Dev TPS(Bhatinda)	440	120	105	2.48	103
	Guru Hargobind Singh TPS(L.mbt)	920	660	552	14.44	602
	Thermal (Total)	2620	1460	1320	32.35	1348
	Total Hydro	1148	360	334	8.84	368
	<b>Total Punjab</b>	<b>3768</b>	<b>1820</b>	<b>1654</b>	<b>41.18</b>	<b>1716</b>
Haryana	Panipat TPS	1367	678	686	16.05	669
	DCRTPP (Yamuna nagar)	600	558	561	12.94	539
	Faridabad GPS (NTPC)	432	0	0	0.00	0
	RGTPP (khedar) (IPP)	1200	0	0	0.00	0
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	587	356	13.13	547
	Thermal (Total)	4944	1823	1603	42.12	1755
	Total Hydro	62	15	12	0.33	14
	<b>Total Haryana</b>	<b>5006</b>	<b>1838</b>	<b>1615</b>	<b>42.44</b>	<b>1769</b>
	Rajasthan	kota TPS	1240	1048	1153	26.88
suratgarh TPS		1500	952	1114	23.98	999
Chabra TPS		500	373	233	7.01	292
Dholpur GPS		330	128	128	2.95	123
Ramgarh GPS		111	41	44	1.08	45
RAPS A (NPC)		300	197	197	4.88	203
Barsingsar (NLC)		250	204	203	4.88	203
Giral LTPS		250	0	0	0.00	0
Rajwest LTPS (IPP)		675	564	601	13.50	563
VSLP LTPS (IPP)		135	0	0	0.00	0
Thermal (Total)		5291	3507	3673	85.16	3548
Total Hydro		550	69	116	2.69	112
Wind power		2191	135	215	5.79	241
Biomass		91	20	20	0.48	20
Solar		201	4	0	0.17	7
Renewable/Others (Total)		2483	155	235	6.44	268
<b>Total Rajasthan</b>		<b>8324</b>	<b>3731</b>	<b>4024</b>	<b>94.29</b>	<b>3929</b>
UP		Anpara TPS	1630	1240	1190	28.90
	Obra TPS	1382	502	498	12.20	508
	Paricha TPS	890	635	622	15.10	629
	Panki TPS	210	59	63	1.40	58
	Harduaganj TPS	665	203	217	5.10	213
	Tanda TPS (NTPC)	440	406	402	9.88	412
	Roza TPS (IPP)	1200	801	797	18.85	785
	Anpara-C (IPP)	1200	458	449	10.67	445
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	399	401	9.19	383
	Thermal (Total)	8067	4703	4639	111.29	4637
	Vishnuparyag HPS (IPP)	400	76	70	1.73	72
	Other Hydro	527	151	187	4.48	187
	Cogeneration	981	800	800	19.20	800
	<b>Total UP</b>	<b>9975</b>	<b>5730</b>	<b>5696</b>	<b>136.70</b>	<b>5624</b>
	Uttarakhand	Total Hydro	1303	482	424	10.43
<b>Total Uttarakhand</b>		<b>1303</b>	<b>482</b>	<b>424</b>	<b>10.43</b>	<b>435</b>
Delhi	Rajghat TPS	135	113	98	2.51	105
	Delhi Gas Turbine	282	129	127	2.83	118
	Pragati Gas Turbine	330	308	267	7.30	304
	Rithala GPS	108	0	0	0.00	0
	Bawana GPS	677	210	207	5.21	217
	Badarpur TPS (NTPC)	705	410	415	9.06	378
	Thermal (Total)	2237	1170	1114	26.91	1121
	<b>Total Delhi</b>	<b>2237</b>	<b>1170</b>	<b>1114</b>	<b>26.91</b>	<b>1121</b>
HP	Baspa HPS (IPP)	330	0	0	0.83	35
	Malana HPS (IPP)	86	35	0	0.19	8
	Other Hydro	589	220	138	4.76	198
	<b>Total HP</b>	<b>1005</b>	<b>255</b>	<b>138</b>	<b>5.78</b>	<b>241</b>
J & K	Baglihar HPS (IPP)	450	150	148	3.58	149
	Other Hydro	323	95	130	3.40	142
	Gas/Diesel/Others	183	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>956</b>	<b>245</b>	<b>278</b>	<b>6.98</b>	<b>291</b>
<b>Total State Control Area Generation</b>		<b>32574</b>	<b>15271</b>	<b>14943</b>	<b>364.72</b>	<b>15125</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>2142</b>	<b>1583</b>	<b>57.79</b>	<b>2408</b>
<b>Total Regional Availability(Gross)</b>		<b>55410</b>	<b>32810</b>	<b>26169</b>	<b>691.30</b>	<b>28732</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	5546	947	55.81	2325
State Control Area Hydro	5368	1577	1489	41.25	1647
<b>Total Regional Hydro</b>	<b>15731</b>	<b>7123</b>	<b>2436</b>	<b>97.06</b>	<b>3972</b>

**V(A). Inter Regional Exchange [Import (+ve)/Export (-ve)] [Linkwise]**

Element	Peak(19:00 Hrs)	Off Peak(03:00 Hrs)	Maximum Interchange (MW)		Energy (MU)		Net Energy MU
	MW	MW	Import	Export	Import	Export	
Vindhychal B/B	-150	-100	100	150	0.38	1.71	-1.33
Gwalior-Agra (D/C)	267	143	618	0	7.24	0.00	7.24
Zerda-Kankroli	-96	-143	39	260	0.00	1.93	-1.93
Zerda-Bhinmal	-22	-53	201	191	0.06	0.00	0.06
Malanpur-Auraiya	-141	-135	0	170	0.00	2.88	-2.88
Badod-Kota/Morak	-66	-180	0	180	0.00	1.67	-1.67
Mundra-Mohindergarh(HVDC)	1265	1266	1267	0	30.48	0.00	30.48
<b>Sub Total WR</b>	<b>1057</b>	<b>798</b>			<b>38.16</b>	<b>8.19</b>	<b>29.97</b>
Pusauli Bypass	50	50	50	0	1.25	0.00	1.25
MZP- GKP (D/C)	128	110	352	0	4.71	0.00	4.71
Patna-Balia(D/C)	543	364	687	0	12.52	0.00	12.52
B'Sharif-Balia (D/C)	172	153	349	0	5.22	0.00	5.22
Barh - Balia(D/C)	0	0	0	0	0.00	0.00	0.00
Pusauli-Balia	-46	-40	21	73	0.00	0.55	-0.55
Gaya-Fatehpur (765 Kv)	98	22	245	0	2.72	0.00	2.72
Pusauli-Sahupuri	140	126	153	0	2.87	0.00	2.87
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	0	0	0	0	0.00	0.93	-0.93
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>1085</b>	<b>785</b>			<b>29.29</b>	<b>1.48</b>	<b>27.81</b>
<b>Total IR Exch</b>	<b>2142</b>	<b>1583</b>			<b>67.45</b>	<b>9.67</b>	<b>57.79</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
34.57	0.15	34.72	-1.47	6.62	0.61	-0.57	3.42	-3.42
<b>Total IR Schedule (MU)</b>			<b>Total IR Actual (MU)</b>			<b>Net IR UI (MU)</b>		
Through ER	Through WR Inclds Mndra	Total	Through ER	Through WR	Total	Through ER	Through WR	Total
37.28	48.01	85.29	27.81	29.97	57.79	-9.47	-18.03	-27.50

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

<48.80	<49.0	<49.20	<49.50	<49.7	49.5 - 50.2	49.7 - 50.2	> 50.00	> 50.2
0.00	0.00	0.00	0.00	0.00	80.31	80.31	88.61	19.69

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					
50.63	17.03	49.80	18.24	50.17	0.49	0.12	50.48	49.97

**VII. Voltage profile**

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	410	02:56	0	14:06	38.0	38.0	0.0	0.0
Gorakhpur	400	430	00:00	417	07:41	0.0	0.0	82.9	0.0
Bareilly	400	426	04:05	407	09:22	0.0	0.0	18.8	0.0
Kanpur	400	420	03:00	400	06:58	0.0	0.0	0.0	0.0
Dadri	400	425	04:03	408	09:21	0.0	0.0	18.6	0.0
Ballabhgarh	400	430	03:01	409	09:21	0.0	0.0	33.6	0.0
Bawana	400	429	04:04	411	09:21	0.0	0.0	29.7	0.0
Bassi	400	430	04:02	396	09:17	0.0	0.0	23.0	0.0
Hissar	400	419	03:01	397	18:45	0.0	0.0	0.0	0.0
Moga	400	420	04:04	400	18:42	0.0	0.0	0.0	0.0
Abdullapur	400	427	21:37	405	06:41	0.0	0.0	33.6	0.0
Nalagarh	400	427	03:01	411	11:18	0.0	0.0	28.5	0.0
Kishenpur	400	420	12:34	394	09:47	0.0	0.0	0.0	0.0
Wagoora	400	406	12:33	374	18:49	15.4	66.9	0.0	0.0

**VIII. 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	487.27	652.97	493.29	838.00	194.82	364.49
Pong	426.72	384.05	405.73	261.16	410.37	504.32	106.36	287.33
Tehri	829.79	740.04	792.60	498.30	818.65	982.26	38.60	148.00
Koteswar	612.50	598.50	NA	NA	NA	NA	NA	NA
Chamera-I	760.00	748.75	NA	NA	NA	NA	64.13	73.81
Rihand	268.22	252.98	NA	500.10	262.74	617.70	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	511.18	NA	503.03	NA	39.93	115.31

\* NA: Not Available

**IX. System Constraints:**

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

**XI. Weather Conditions For 10.02.2013 :**

1.Clear Weather in NR.

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

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

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

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

Report for : 10.02.2013

पारी प्रभाती अजिंयता / SHIFT CHARGE ENGINEER