

# पावर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 18.01.2013  
Date of Reporting : 19.01.2013

### 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
29523	3612	33135	49.92	19223	6	19229	50.71	593.4	34.99

\* 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)	UI [OD:(+ve), UD: (-ve)]	
	Thermal	Hydro	Renewable/others \$	Total				Consumption (Net MU)	Shortages * (MU)
Punjab	49.36	7.63		56.99	30.94	30.84	-0.10	87.83	1.80
Haryana	41.98	0.44		42.41	24.14	23.60	-0.53	66.02	1.25
Rajasthan	49.87	5.34	9.61	64.83	68.12	63.00	-5.12	127.82	1.55
Delhi	26.58			26.58	36.96	36.38	-0.58	62.97	0.01
UP	96.90	2.06	19.20	118.16	53.75	55.65	1.90	173.81	27.68
Uttarakhand		8.83		8.83	19.00	11.82	-7.18	20.65	0.99
HP		4.37		4.37	19.78	18.78	-1.00	23.15	0.02
J & K		7.02	0.00	7.02	24.54	20.44	-4.10	27.46	1.70
Chandigarh				0.00	3.37	3.74	0.37	3.74	0.00
<b>Total</b>	<b>264.70</b>	<b>35.68</b>	<b>28.81</b>	<b>329.19</b>	<b>280.59</b>	<b>264.25</b>	<b>-16.34</b>	<b>593.44</b>	<b>34.99</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	4141	600	-151	-416	3089	0	-88	197	-4.85
Haryana	4236	163	71	-221	1867	0	-391	-482	-10.24
Rajasthan	6346	596	259	1216	4062	0	-674	1350	36.51
Delhi	3272	0	18	-690	1326	6	47	-1527	-24.72
UP	7544	2153	72	-121	6594	0	-217	-156	-6.45
Uttarakhand	1132	0	-202	525	613	0	-475	557	12.37
HP	1075	0	-215	392	766	0	-34	490	10.29
J&K	1582	100	-130	428	818	0	-406	508	10.14
Chandigarh	195	0	-16	0	89	0	10	-31	-0.19
<b>Total</b>	<b>29523</b>	<b>3612</b>	<b>-293</b>	<b>1113</b>	<b>19223</b>	<b>6</b>	<b>-2228</b>	<b>906</b>	<b>22.85</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)	UI [OG:(+ve), UG: (-ve)]		
								Net MU	Net MU	
A. NTPC	Singrauli STPS	2000	1955	2088	1463	40.26	1678	40.34	-0.08	
	Rihand I STPS	1000	920	490	615	18.24	760	18.92	-0.68	
	Rihand II STPS	1000	975	989	658	19.57	815	20.10	-0.53	
	Rihand III STPS	500	323	65	0	4.61	192	4.68	-0.07	
	Dadri I STPS	840	810	805	595	15.87	661	17.06	-1.19	
	Dadri II STPS	980	975	850	614	17.78	741	19.96	-2.18	
	Unchahar I TPS	420	406	225	333	7.42	309	7.24	0.19	
	Unchahar II TPS	420	405	320	317	7.11	296	7.00	0.10	
	Unchahar III TPS	210	202	170	158	3.55	148	3.50	0.06	
	ISTPP (Jhajihar)	1500	980	376	307	6.91	288	7.01	-0.10	
	Dadri GPS	830	848	100	0	1.28	54	2.76	-1.48	
	Anta GPS	419	424	0	0	0.00	0	0.02	-0.02	
	Auraiya GPS	663	671	145	109	2.97	124	3.07	-0.09	
	<b>Sub Total (A)</b>		<b>10782</b>	<b>9894</b>	<b>6623</b>	<b>5169</b>	<b>145.57</b>	<b>6065</b>	<b>151.66</b>	<b>-6.09</b>
	B. NPC	NAPS	440	142	165	167	3.41	142	3.41	0.00
		RAPS- B	440	418	468	470	10.16	423	10.03	0.13
RAPS- C		440	438	474	474	10.21	425	10.51	-0.30	
<b>Sub Total (B)</b>			<b>1320</b>	<b>998</b>	<b>1107</b>	<b>1111</b>	<b>23.78</b>	<b>991</b>	<b>23.95</b>	<b>-0.17</b>
C. NHPC	Chamera I HPS	540	550	360	0	1.51	63	1.50	0.01	
	Chamera II HPS	300	253	160	0	1.11	46	1.18	-0.07	
	Chamera III HPS	231	197	80	0	0.62	26	0.62	0.01	
	Bairasuil HPS	180	182	60	0	0.62	26	0.56	0.05	
	Salal-HPS	690	207	110	32	4.80	200	4.87	-0.07	
	Tanakpur-HPS	94	29	36	20	0.71	29	0.66	0.05	
	Uri-HPS	480	119	90	13	3.19	133	2.96	0.23	
	Dhauliganga-HPS	280	210	35	0	0.75	31	0.91	-0.16	
	Dulhasti-HPS	390	0	0	0	0.00	0	0.00	0.00	
	Sewa-II HPS	120	120	125	0	0.25	11	0.27	-0.01	
<b>Sub Total (C)</b>		<b>3305</b>	<b>1867</b>	<b>1056</b>	<b>65</b>	<b>13.57</b>	<b>565</b>	<b>13.53</b>	<b>0.04</b>	
D.NJPC	Nathpa Jhakri	1500	1350	1087	0	6.15	256	6.00	0.14	
	<b>Sub Total (D)</b>		<b>1500</b>	<b>1350</b>	<b>1087</b>	<b>0</b>	<b>6.15</b>	<b>256</b>	<b>6.00</b>	<b>0.14</b>
E. THDC	Tehri HPS	1000	1000	987	0	9.50	396	9.60	-0.10	
	Koteshwar HPS	400	400	400	0	3.31	138	3.40	-0.09	
<b>Sub Total (E)</b>		<b>1400</b>	<b>1400</b>	<b>1387</b>	<b>0</b>	<b>12.81</b>	<b>534</b>	<b>13.00</b>	<b>-0.19</b>	
F. BBMB	Bhakra HPS	1480	661	949	319	15.99	666	15.86	0.13	
	Dehar HPS	990	139	495	0	3.49	145	3.35	0.15	
	Pong HPS	396	261	306	246	6.31	263	5.01	1.30	
	<b>Sub Total (F)</b>		<b>2866</b>	<b>1061</b>	<b>1750</b>	<b>565</b>	<b>25.79</b>	<b>1075</b>	<b>24.21</b>	<b>1.58</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	0	0	0.31	13	0.33	-0.02	
	KWHEP HPS(IPP)	1000	0	0	0	0.00	0	0.00	0.00	
	Malana Stg-II HPS	100	0	19	0	0.14	6	0.11	0.03	
	Shree Cement TPS	300	0	134	133	3.29	137	5.13	-1.84	
	Budhil HPS(IPP)	70	0	6	0	0.05	2	0.03	0.02	
	<b>Sub Total (G)</b>		<b>1662</b>	<b>0</b>	<b>159</b>	<b>133</b>	<b>3.79</b>	<b>158</b>	<b>5.60</b>	<b>-1.81</b>
<b>H. Total Regional Entities (A-G)</b>		<b>22836</b>	<b>16570</b>	<b>13169</b>	<b>7043</b>	<b>231.45</b>	<b>9644</b>	<b>237.96</b>	<b>-6.51</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	1060	850	23.73	989
	Guru Nanak Dev TPS(Bhatinda)	440	285	285	6.76	282
	Guru Hargobind Singh TPS(L.mbt)	920	774	726	18.87	786
	Thermal (Total)	2620	2119	1861	49.36	2057
	Total Hydro	1148	302	276	7.63	318
	<b>Total Punjab</b>	<b>3768</b>	<b>2421</b>	<b>2137</b>	<b>56.99</b>	<b>2375</b>
Haryana	Panipat TPS	1367	645	595	14.76	615
	DCRTPP (Yamuna nagar)	600	281	279	4.40	184
	Faridabad GPS (NTPC)	432	211	182	4.40	184
	RGTPP (khedar) (IPP)	1200	381	318	8.01	334
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	594	352	10.40	434
	Thermal (Total)	4944	196	1726	41.98	1749
	Total Hydro	62	11	20	0.44	18
	<b>Total Haryana</b>	<b>5006</b>	<b>207</b>	<b>1746</b>	<b>42.41</b>	<b>1767</b>
	Rajasthan	kota TPS	1240	757	709	15.17
suratgarh TPS		1500	426	345	9.56	398
Chabra TPS		500	228	187	5.02	209
Dholpur GPS		330	100	0	0.78	33
Ramgarh GPS		111	0	0	0.27	11
RAPS A (NPC)		300	204	204	4.03	168
Barsingsar (NLC)		250	111	110	2.55	106
Giral LTPS		250	117	112	2.71	113
Rajwest LTPS (IPP)		675	360	477	9.78	407
VSLP LTPS (IPP)		135	0	0	0.00	0
Thermal (Total)		5291	2303	2144	49.87	2078
Total Hydro		550	296	86	5.34	223
Wind power		2191	521	289	8.86	369
Biomass		91	25	25	0.60	25
Solar		201	4	0	0.15	6
Renewable/Others (Total)		2483	546	314	9.61	400
<b>Total Rajasthan</b>	<b>8324</b>	<b>3145</b>	<b>2544</b>	<b>64.83</b>	<b>2701</b>	
UP	Anpara TPS	1630	1382	1132	27.60	1150
	Obra TPS	1382	556	569	12.30	513
	Paricha TPS	890	709	641	14.10	588
	Panki TPS	210	0	0	0.00	0
	Harduaganj TPS	665	226	0	2.60	108
	Tanda TPS (NTPC)	440	361	333	8.64	360
	Roza TPS (IPP)	1200	675	635	15.68	653
	Anpara-C (IPP)	1200	283	399	7.81	326
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	341	381	8.17	340
	Thermal (Total)	8067	4533	4090	96.90	4038
	Vishnuparyag HPS (IPP)	400	0	0	0.00	0
	Other Hydro	527	74	93	2.06	86
	Cogeneration	981	800	800	19.20	800
	<b>Total UP</b>	<b>9975</b>	<b>5407</b>	<b>4983</b>	<b>118.16</b>	<b>4923</b>
	Uttarakhand	Total Hydro	1303	440	248	8.83
<b>Total Uttarakhand</b>		<b>1303</b>	<b>440</b>	<b>248</b>	<b>8.83</b>	<b>368</b>
Delhi	Raighat TPS	135	105	101	2.64	110
	Delhi Gas Turbine	282	74	71	1.94	81
	Pragati Gas Turbine	330	312	264	7.40	308
	Rithala GPS	108	0	0	0.00	0
	Bawana GPS	677	209	187	4.93	206
	Badarpur TPS (NTPC)	705	430	370	9.67	403
	Thermal (Total)	2237	1130	993	26.58	1108
<b>Total Delhi</b>	<b>2237</b>	<b>1130</b>	<b>993</b>	<b>26.58</b>	<b>1108</b>	
HP	Baspa HPS (IPP)	330	0	0	0.85	35
	Malana HPS (IPP)	86	38	0	0.22	9
	Other Hydro	589	119	82	3.30	137
	<b>Total HP</b>	<b>1005</b>	<b>157</b>	<b>82</b>	<b>4</b>	<b>182</b>
J & K	Baglihar HPS (IPP)	450	152	150	3.62	151
	Other Hydro	323	120	170	3.40	142
	Gas/Diesel/Others	183	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>956</b>	<b>272</b>	<b>320</b>	<b>7.02</b>	<b>293</b>
<b>Total State Control Area Generation</b>		<b>32574</b>	<b>13179</b>	<b>13053</b>	<b>329.19</b>	<b>13716</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>2626</b>	<b>-456</b>	<b>46.48</b>	<b>1937</b>
<b>Total Regional Availability(Gross)</b>		<b>55410</b>	<b>28974</b>	<b>19640</b>	<b>607.12</b>	<b>25297</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	5299	630	58.76	2448
State Control Area Hydro	5368	1552	1125	35.68	1487
<b>Total Regional Hydro</b>	<b>15731</b>	<b>6851</b>	<b>1755</b>	<b>94.44</b>	<b>3935</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	-100	-500	100	500	0.28	6.64	-6.36
Gwalior-Agra (D/C)	493	-45	876	193	9.76	0.00	9.76
Zerda-Kankroli	107	-381	207	401	0.00	0.67	-0.67
Zerda-Bhinmal	156	-288	276	451	0.00	0.20	-0.20
Malanpur-Auraiya	-68	-47	0	122	0.00	0.79	-0.79
Badod-Kota/Morak	16	-208	40	191	0.00	1.25	-1.25
Mundra-Mohindergarh(HVDC)	1218	1103	0	0	28.57	0.00	28.57
<b>Sub Total WR</b>	<b>1822</b>	<b>-366</b>			<b>38.61</b>	<b>9.55</b>	<b>29.06</b>
Pusauli Bypass	200	100	200	0	3.24	0.00	3.24
MZP- GKP (D/C)	120	-54	422	132	4.29	0.00	4.29
Patna-Balia(D/C)	470	226	495	0	9.66	0.00	9.66
B'Sharif-Balia (D/C)	140	3	251	0	2.94	0.00	2.94
Barh - Balia(D/C)	0	0	0	0	0.00	0.00	0.00
Pusauli-Balia	-120	-71	0	120	0.00	1.61	-1.61
Gaya-Fatehpur (765 Kv)	117	-147	22	197	1.54	0.00	1.54
Pusauli-Sahupuri	-91	-110	0	116	0.00	1.65	-1.65
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-32	-37	0	48	0.00	0.99	-0.99
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>804</b>	<b>-90</b>			<b>21.66</b>	<b>4.25</b>	<b>17.42</b>
<b>Total IR Exch</b>	<b>2626</b>	<b>-456</b>			<b>60.27</b>	<b>13.80</b>	<b>46.48</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
22.04	0.07	22.11	-2.22	10.89	0.02	11.63	-3.04	3.17

Total IR Schedule (MU)			Total IR Actual (MU)			Net IR UI (MU)		
Through ER	Through WR Incld Mndra	Total	Through ER	Through WR	Total	Through ER	Through WR	Total
16.87	47.44	64.30	17.42	29.06	46.48	0.55	-18.38	-17.83

**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	2.26	74.06	71.80	74.00	25.94

<----- 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				
50.78	3.04	49.55	20.03	50.17	0.84	0.21	50.76	49.84

**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	412	3:06	420	19:32	0.1	0.1	0.0	0.0
Gorakhpur	400	434	17:06	418	6:26	0.0	0.0	93.9	6.2
Bareilly	400	436	3:05	411	19:02	0.0	0.0	52.6	13.5
Kanpur	400	429	3:44	406	20:02	0.0	0.0	24.4	0.0
Dadri	400	431	1:47	405	19:02	0.0	0.0	35.6	4.3
Ballabgarh	400	438	3:06	409	19:02	0.0	0.0	57.3	22.4
Bawana	400	435	3:06	407	18:13	0.0	0.0	47.9	19.6
Bassi	400	436	0:15	402	16:28	0.0	0.0	29.9	9.2
Hissar	400	424	2:28	397	18:13	0.0	0.0	13.2	0.0
Moga	400	422	2:52	398	18:09	0.0	0.0	3.0	0.0
Abdullapur	400	432	2:27	404	18:19	0.0	0.0	45.4	3.5
Nalagarh	400	427	0:43	408	18:20	0.0	0.0	32.8	0.0
Kishenpur	400	432	3:40	397	18:25	0.0	0.0	21.1	1.8
Wagoora	400	429	3:40	382	18:49	0.0	8.8	12.7	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 (m <sup>3</sup> /s)	Usage (m <sup>3</sup> /s)
Bhakra	513.59	445.62	490.97	768.41	498.91	1053.16	232.62	458.48
Pong	426.72	384.05	408.56	454.61	412.37	577.87	69.35	416.77
Tehri	829.79	740.04	802.50	656.60	818.65	982.26	NA	229.00
Koteswar	612.50	598.50	NA	NA	NA	NA	NA	NA
Chamera-I	760.00	748.75	NA	NA	NA	NA	NA	NA
Rihand	268.22	252.98	260.76	500.10	263.23	617.70	NA	NA
RPS	352.80	343.81	348.44	NA	NA	NA	NA	NA
Jawahar Sagar	298.70	295.78	297.82	NA	NA	NA	NA	NA
RSD	527.91	487.91	512.13	NA	506.75	NA	46.18	32.99

\* NA: Not Available

**IX. System Constraints:**

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

**XI. Weather Conditions For 18.01.2013 :**

1. Rains in Northern Region.

**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 : 18.01.2013

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER