

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 19.05.2012  
Date of Reporting : 20.05.2012

### I. Regional Availability/Demand:

Demand Met	Evening Peak (20:00 Hrs) MW			Demand Met	Off Peak (03:00 Hrs) MW			Day Energy (Net MU)	
	Shortage	Requirement	Freq* (Hz)		Shortage	Requirement	Freq* (Hz)	Demand Met	Shortage
32953	2327	35280	50.06	33686	3139	36825	49.68	791.3	86.98

\* 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	47.93	14.75		62.69	64.11	67.56	3.45	130.25	8.20
Haryana	59.85	0.92		60.77	42.45	41.21	-1.24	101.98	12.28
Rajasthan	65.87	1.00	11.49	78.36	52.78	60.55	7.77	138.91	11.73
Delhi	27.55			27.55	60.08	62.76	2.69	90.31	1.44
UP	88.41	10.97	7.20	106.58	90.13	133.01	42.88	239.59	48.27
Uttarakhand		17.62		17.62	12.70	13.23	0.53	30.85	0.00
HP		13.89		13.89	9.87	10.07	0.20	23.96	2.11
J & K		14.26	0.00	14.26	15.94	16.23	0.29	30.48	2.95
Chandigarh				0.00	4.99	4.98	-0.01	4.98	0.00
<b>Total</b>	<b>289.61</b>	<b>73.41</b>	<b>18.69</b>	<b>381.71</b>	<b>353.05</b>	<b>409.61</b>	<b>56.57</b>	<b>791.32</b>	<b>86.98</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 (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	
Punjab	5770	450	209	379	5443	293	48	380	9.09
Haryana	4218	0	-274	169	4331	936	51	169	4.05
Rajasthan	5811	0	-265	-396	5505	0	355	-396	-9.50
Delhi	3859	27	291	475	3609	0	-103	381	10.02
UP	9291	1550	930	70	11518	1580	2308	75	1.71
Uttarakhand	1391	150	32	28	1072	230	-166	27	0.66
HP	947	0	-125	-506	879	0	-12	-288	-10.19
J&K	1427	150	-9	-393	1145	100	-169	-413	-9.83
Chandigarh	239	0	16	0	184	0	6	0	0.57
<b>Total</b>	<b>32953</b>	<b>2327</b>	<b>805</b>	<b>-174</b>	<b>33686</b>	<b>3139</b>	<b>2318</b>	<b>-65</b>	<b>-3.41</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	1900	2054	2051	46.02	1918	45.60	0.42
	Rihand I STPS	1000	460	515	525	11.15	465	11.04	0.11
	Rihand II STPS	1000	455	523	522	11.18	466	10.92	0.26
	Dadri I STPS	840	598	625	655	14.65	610	14.36	0.29
	Dadri II STPS	980	461	505	514	11.20	467	11.07	0.13
	Unchahar I TPS	420	404	438	438	9.70	404	9.70	0.01
	Unchahar II TPS	420	404	435	441	9.72	405	9.70	0.03
	Unchahar III TPS	210	201	218	220	4.85	202	4.82	0.02
	ISTPP (Jhajjar)	1000	470	492	469	10.59	441	10.75	-0.16
	Dadri GPS	830	778	746	717	16.70	696	16.78	-0.08
	Anta GPS	419	380	360	315	8.19	341	7.98	0.20
	Auraiya GPS	663	609	583	574	13.45	560	12.88	0.56
	<b>Sub Total (A)</b>	<b>9782</b>	<b>7121</b>	<b>7494</b>	<b>7441</b>	<b>167.39</b>	<b>6975</b>	<b>165.59</b>	<b>1.80</b>
	B. NPC	NAPS	440	124	150	154	3.08	128	2.98
RAPS- B		440	367	411	414	8.83	368	8.81	0.03
RAPS- C		440	232	234	234	5.04	210	5.57	-0.53
<b>Sub Total (B)</b>		<b>1320</b>	<b>723</b>	<b>795</b>	<b>802</b>	<b>16.95</b>	<b>706</b>	<b>17.35</b>	<b>-0.41</b>
C. NHPC	Chamera I HPS	540	534	540	540	9.06	378	8.96	0.10
	Chamera II HPS	300	297	301	301	6.35	265	6.37	-0.03
	Bairasuil HPS	180	182	182	176	3.31	138	3.06	0.24
	Salal-HPS	690	547	571	544	13.15	548	13.11	0.04
	Tanakpur-HPS	94	41	56	41	1.06	44	1.00	0.06
	Uri-HPS	480	476	480	480	11.60	483	11.63	-0.03
	Dhauliganga-HPS	280	277	277	139	3.72	155	3.79	-0.07
	Dulhasti-HPS	390	388	410	414	9.30	388	9.29	0.01
	Sewa-II HPS	120	80	85	86	1.94	81	1.93	0.01
	<b>Sub Total (C)</b>	<b>3074</b>	<b>2821</b>	<b>2902</b>	<b>2721</b>	<b>59.49</b>	<b>2479</b>	<b>59.14</b>	<b>0.35</b>
D. NJPC	Nathpa Jhakri	1500	1600	1349	1340	23.65	985	23.00	0.65
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1600</b>	<b>1349</b>	<b>1340</b>	<b>23.65</b>	<b>985</b>	<b>23.00</b>	<b>0.65</b>
E. THDC	Tehri HPS	1000	535	416	122	5.10	212	5.00	0.10
	Koteshwar HPS	400	315	273	95	2.89	120	2.70	0.19
	<b>Sub Total (E)</b>	<b>1400</b>	<b>850</b>	<b>689</b>	<b>217</b>	<b>7.99</b>	<b>333</b>	<b>7.70</b>	<b>0.29</b>
F. BBMB	Bhakra HPS	1480	705	1048	537	17.31	721	16.92	0.40
	Dehar HPS	990	452	660	495	12.08	503	10.84	1.24
	Pong HPS	396	149	300	0	3.73	155	3.58	0.15
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1306</b>	<b>2008</b>	<b>1032</b>	<b>33.12</b>	<b>1380</b>	<b>31.34</b>	<b>1.78</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	174	106	2.42	101	2.44	-0.02
	KWHEP HPS(IPP)	1000	0	850	360	13.88	578	13.92	-0.04
	Malana Stg-II HPS	100	0	39	45	0.95	40	0.00	0.95
	Shree Cement TPS	300	0	129	143	3.45	144	3.06	0.40
	<b>Sub Total (G)</b>	<b>1592</b>	<b>0</b>	<b>1192</b>	<b>654</b>	<b>20.71</b>	<b>863</b>	<b>19.42</b>	<b>1.28</b>
<b>H. Total Regional Entities (A-G)</b>	<b>21535</b>	<b>14420</b>	<b>16429</b>	<b>14207</b>	<b>329.29</b>	<b>13720</b>	<b>323.55</b>	<b>5.74</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	1050	23.43	976
	Guru Nanak Dev TPS(Bhatinda)	440	180	105	3.21	134
	Guru Hargobind Singh TPS(L.mbt)	920	962	957	21.29	887
	Thermal (Total)	2620	2192	2112	47.93	1997
	Total Hydro	1148	684	601	14.75	615
	<b>Total Punjab</b>	<b>3768</b>	<b>2876</b>	<b>2713</b>	<b>62.69</b>	<b>2612</b>
Haryana	Panipat TPS	1367	1062	1067	25.65	1069
	DCRTPP (Yamuna nagar)	600	0	0	0.00	0
	Faridabad GPS (NTPC)	432	367	378	8.94	373
	RGTPP (kheldar) (IPP)	1200	498	527	12.73	530
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	585	570	12.53	522
	Thermal (Total)	4944	2512	2542	59.85	2494
	Total Hydro	62	23	23	0.92	38
	<b>Total Haryana</b>	<b>5006</b>	<b>2535</b>	<b>2565</b>	<b>60.77</b>	<b>2532</b>
Rajasthan	kota TPS	1240	1159	1154	27.40	1141
	suratgarh TPS	1500	1331	1127	29.22	1218
	Chabra TPS	500	0	0	0.00	0
	Dholpur GPS	330	178	90	2.84	118
	Ramgarh GPS	111	27	30	0.71	30
	RAPS A (NPC)	300	0	0	0.00	0
	Barsingsar (NLC)	250	0	0	0.00	0
	Giral LTPS	250	0	0	0.00	0
	Rajwest LTPS (IPP)	540	230	230	5.70	238
	VSLP LTPS (IPP)	135	0	0	0.00	0
	Thermal (Total)	5156	2925	2631	65.87	2744
	Total Hydro	550	22	0	1.00	42
	Wind power	1843	426	522	9.37	390
	Biomass	91	47	47	1.13	47
	Solar	128	0	0	0.00	0
	Renewable/Others (Total)	2062	473	569	11.49	479
	<b>Total Rajasthan</b>	<b>7767</b>	<b>3420</b>	<b>3200</b>	<b>78.36</b>	<b>3265</b>
UP	Anpara TPS	1630	1162	1175	25.10	1046
	Obra TPS	1382	306	369	7.30	304
	Paricha TPS	640	397	398	8.60	358
	Panki TPS	210	100	135	2.90	121
	Harduaganj TPS	665	271	275	6.10	254
	Tanda TPS (NTPC)	440	289	289	7.15	298
	Roza TPS (IPP)	1200	819	828	19.77	824
	Anpara-C (IPP)	1200	329	0	2.33	97
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	392	392	9.16	381
	Thermal (Total)	7817	4065	3861	88.41	3684
	Vishnuparyag HPS (IPP)	400	304	327	7.03	293
	Other Hydro	527	151	40	3.94	164
	Cogeneration	981	300	300	7.20	300
	<b>Total UP</b>	<b>9725</b>	<b>4820</b>	<b>4528</b>	<b>106.58</b>	<b>4148</b>
Uttarakhand	Total Hydro	1303	718	745	17.62	734
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>718</b>	<b>745</b>	<b>17.62</b>	<b>734</b>
Delhi	Rajghat TPS	135	106	106	2.70	112
	Delhi Gas Turbine	282	221	226	5.46	227
	Pragati Gas Turbine	330	279	286	6.99	291
	Rithala GPS	108	25	29	0.69	29
	Bawana GPS	677	0	196	1.15	48
	Badarpur TPS (NTPC)	705	410	530	10.56	440
	Thermal (Total)	2237	1041	1373	27.55	1148
	<b>Total Delhi</b>	<b>2237</b>	<b>1041</b>	<b>1373</b>	<b>27.55</b>	<b>1148</b>
HP	Baspa HPS (IPP)	330	162	105	3.32	138
	Malana HPS (IPP)	86	34	18	0.85	36
	Other Hydro	589	413	381	9.72	405
	<b>Total HP</b>	<b>1005</b>	<b>609</b>	<b>504</b>	<b>14</b>	<b>579</b>
J & K	Baglihar HPS (IPP)	450	436	438	10.50	438
	Other Hydro	323	166	155	3.76	156
	Gas/Diesel/Others	183	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>956</b>	<b>602</b>	<b>593</b>	<b>14.26</b>	<b>594</b>
<b>Total State Control Area Generation</b>		<b>31767</b>	<b>16621</b>	<b>16221</b>	<b>381.71</b>	<b>15612</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>2292</b>	<b>4427</b>	<b>89.10</b>	<b>3713</b>
<b>Total Regional Availability(Gross)</b>		<b>53302</b>	<b>35342</b>	<b>34854</b>	<b>800.10</b>	<b>33045</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	10133	8011	5821	141.50	5896
State Control Area Hydro	5368	2809	2506	66.38	2766
<b>Total Regional Hydro</b>	<b>15500</b>	<b>10820</b>	<b>8326</b>	<b>207.87</b>	<b>8661</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	400	100	400	0	6.94	0.00	6.94
Gwalior-Agra (D/C)	484	1154	1315	0	23.70	0.00	23.70
Zerda-Kankroli	40	121	272	0	2.58	0.00	2.58
Zerda-Bhinmal	63	135	377	80	3.59	0.00	3.59
Malanpur-Auraiya	-50	-10	0	131	0.00	0.73	-0.73
Badod-Kota/Morak	19	59	108	19	1.63	0.00	1.63
<b>Sub Total WR</b>	<b>956</b>	<b>1559</b>			<b>38.43</b>	<b>0.73</b>	<b>37.70</b>
Pusauli Bypass	-93	262	265	203	1.63	0.00	1.63
MZP- GKP (D/C)	416	936	940	0	18.38	0.00	18.38
Patna-Balia(D/C)	291	603	767	0	12.79	0.00	12.79
B'Sharif-Balia (D/C)	285	535	586	0	10.21	0.00	10.21
Barh - Balia(D/C)	289	372	585	0	6.10	0.00	6.10
Pusauli-Balia	0	0	0	0	0.00	0.00	0.00
Gaya-Fatehpur (765 Kv)	0	0	0	0	0.00	0.00	0.00
Pusauli-Sahupuri	140	132	160	0	3.18	0.00	3.18
K'nasa-Sahupuri	48	60	60	0	0.10	0.00	0.10
Son Ngr-Rihand	-40	-32	0	47	0.00	0.97	-0.97
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>1336</b>	<b>2868</b>			<b>52.38</b>	<b>0.97</b>	<b>51.41</b>
<b>Total IR Exch</b>	<b>2292</b>	<b>4427</b>			<b>90.81</b>	<b>1.71</b>	<b>89.10</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	
29.56	0.68	30.24	-3.18	2.08	0.87	10.46	2.99	-2.99	

Total IR Schedule (MU)			Total IR Actual (MU)			Net IR UI (MU)		
Through ER	Through WR	Total	Through ER	Through WR	Total	Through ER	Through WR	Total
30.93	10.72	41.65	51.41	37.70	89.10	20.48	26.97	47.46

**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	1.20	14.20	50.20	85.50	49.50	6.60	0.30

<----- 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	49.70	1.28	0.20	50.14	49.41
50.24	18.01	49.04	23.06					

**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	409	06:33	400	22:33	0.0	0.0	0.0	0.0
Gorakhpur	400	0	00:00	9999	00:00	0.0	0.0	0.0	0.0
Bareilly	400	0	00:00	9999	00:00	0.0	0.0	0.0	0.0
Kanpur	400	414	19:01	395	10:07	0.0	0.0	0.0	0.0
Dadri	400	413	19:01	395	10:07	0.0	0.0	0.0	0.0
Ballabgarh	400	418	19:01	397	10:05	0.0	0.0	0.0	0.0
Bawana	400	416	19:02	398	10:05	0.0	0.0	0.0	0.0
Bassi	400	423	19:02	395	10:07	0.0	0.0	3.4	0.0
Hissar	400	412	19:06	391	10:08	0.0	0.0	0.0	0.0
Moga	400	420	08:04	400	10:07	0.0	0.0	0.0	0.0
Abdullapur	400	418	06:56	396	17:22	0.0	0.0	0.0	0.0
Nalagarh	400	423	06:03	403	10:07	0.0	0.0	5.9	0.0
Kishenpur	400	415	08:03	398	22:17	0.0	0.0	0.0	0.0
Wagoora	400	407	03:50	385	22:02	0.0	9.5	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	469.89	267.31	479.69	454.47	505.23	616.77
Pong	426.72	384.05	402.36	275.31	411.20	534.70	64.73	254.31
Tehri	829.79	740.04	748.80	38.00	818.65	982.26	113.80	174.00
Koteshwar	612.50	598.50	611.20	5.20	NA	NA	176.00	186.00
Chamera-I	760.00	748.75	754.76	NA	NA	NA	261.30	245.46
Rihand	268.22	252.98	256.89	152.90	254.23	46.70	NA	NA
RPS	352.80	343.81	349.36	NA	NA	NA	NA	NA
Jawahar Sagar	298.70	295.78	298.03	NA	NA	NA	NA	NA
RSD	527.91	487.91	500.39	NA	510.23	NA	227.24	315.65

\* NA: Not Available

**IX. System Constraints:**

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

**XI. Weather Conditions For 19.05.2012 :**

Hot weather

**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 : 19.05.2012

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER