

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 15.05.2012  
Date of Reporting : 16.05.2012

### 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
32338	3585	35923	49.95	32680	1930	34610	49.61	767.2	69.81

\* 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	46.89	16.05		62.94	63.65	61.90	-1.75	124.84	4.70
Haryana	61.83	0.87		62.70	49.77	45.66	-4.11	108.36	3.69
Rajasthan	67.81	0.07	14.11	81.99	42.60	52.13	9.54	134.13	9.83
Delhi	31.49			31.49	61.45	52.80	-8.64	84.29	0.01
UP	80.76	9.81	7.20	97.77	94.40	129.14	34.75	226.92	46.39
Uttarakhand		15.85		15.85	12.38	14.04	1.65	29.89	2.10
HP		12.55		12.55	10.37	10.96	0.59	23.51	0.15
J & K		14.26	0.00	14.26	15.58	15.79	0.21	30.05	2.95
Chandigarh				0.00	5.31	5.25	-0.06	5.25	0.00
<b>Total</b>	<b>288.78</b>	<b>69.46</b>	<b>21.31</b>	<b>379.55</b>	<b>355.49</b>	<b>387.68</b>	<b>32.18</b>	<b>767.23</b>	<b>69.81</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	5567	853	42	486	5191	0	-108	486	11.66
Haryana	4549	75	-147	294	4471	82	-198	294	7.05
Rajasthan	5892	609	612	-381	5547	178	374	-381	-9.14
Delhi	3806	0	-215	385	2927	0	-814	385	9.24
UP	8636	1748	330	70	11175	1420	2079	75	1.71
Uttarakhand	1341	150	77	28	1217	150	68	27	0.67
HP	925	0	-73	-709	810	0	-76	-491	-15.06
J&K	1379	150	-39	-393	1156	100	-108	-393	-9.67
Chandigarh	243	0	3	0	186	0	-1	0	0.57
<b>Total</b>	<b>32338</b>	<b>3585</b>	<b>590</b>	<b>-220</b>	<b>32680</b>	<b>1930</b>	<b>1216</b>	<b>3</b>	<b>-2.96</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	1450	1578	1587	35.01	1459	34.80	0.21
	Rihand I STPS	1000	915	1001	997	22.06	919	21.96	0.09
	Rihand II STPS	1000	965	1040	1041	23.39	974	23.16	0.22
	Dadri I STPS	840	597	654	658	14.48	603	14.33	0.15
	Dadri II STPS	980	470	514	506	11.35	473	11.28	0.07
	Unchahar I TPS	420	396	443	435	9.57	399	9.51	0.05
	Unchahar II TPS	420	404	440	439	9.75	406	9.70	0.06
	Unchahar III TPS	210	201	218	218	4.86	202	4.82	0.03
	ISTPP (Jhajjar)	1000	960	801	484	18.07	753	17.17	0.90
	Dadri GPS	830	800	687	787	16.94	706	16.73	0.21
	Anta GPS	419	388	289	253	6.60	275	6.71	-0.11
	Auraiya GPS	663	609	449	313	8.26	344	8.55	-0.30
	<b>Sub Total (A)</b>	<b>9782</b>	<b>8155</b>	<b>8114</b>	<b>7718</b>	<b>180.33</b>	<b>7514</b>	<b>178.72</b>	<b>1.61</b>
	B. NPC	NAPS	440	0	0	0	0.00	0	0.00
RAPS- B		440	374	409	413	8.84	368	8.98	-0.14
RAPS- C		440	420	463	466	9.93	414	10.08	-0.15
<b>Sub Total (B)</b>		<b>1320</b>	<b>794</b>	<b>872</b>	<b>879</b>	<b>18.76</b>	<b>782</b>	<b>19.06</b>	<b>-0.29</b>
C. NHPC	Chamera I HPS	540	534	540	360	8.97	374	8.69	0.28
	Chamera II HPS	300	297	274	206	4.98	208	4.87	0.12
	Bairasuil HPS	180	182	182	182	3.35	140	3.13	0.22
	Salal-HPS	690	478	553	516	11.66	486	11.51	0.15
	Tanakpur-HPS	94	30	57	38	0.98	41	0.94	0.05
	Uri-HPS	480	471	480	480	11.61	484	11.53	0.08
	Dhauliganga-HPS	280	277	277	73	2.57	107	2.49	0.08
	Dulhasti-HPS	390	388	414	413	9.22	384	8.96	0.25
	Sewa-II HPS	120	80	85	85	1.96	82	1.91	0.06
	<b>Sub Total (C)</b>	<b>3074</b>	<b>2736</b>	<b>2862</b>	<b>2353</b>	<b>55.31</b>	<b>2304</b>	<b>54.02</b>	<b>1.29</b>
D. NJPC	Nathpa Jhakri	1500	1600	1623	514	20.03	835	19.17	0.86
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1600</b>	<b>1623</b>	<b>514</b>	<b>20.03</b>	<b>835</b>	<b>19.17</b>	<b>0.86</b>
E. THDC	Tehri HPS	1000	425	425	417	5.71	238	5.50	0.21
	Koteshwar HPS	400	300	302	87	2.50	104	2.60	-0.10
<b>Sub Total (E)</b>	<b>1400</b>	<b>725</b>	<b>727</b>	<b>504</b>	<b>8.22</b>	<b>342</b>	<b>8.10</b>	<b>0.12</b>	
F. BBMB	Bhakra HPS	1480	737	1054	679	17.94	748	17.69	0.25
	Dehar HPS	990	418	460	435	10.63	443	10.03	0.60
	Pong HPS	396	106	183	120	2.62	109	2.55	0.07
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1261</b>	<b>1697</b>	<b>1234</b>	<b>31.19</b>	<b>1300</b>	<b>30.27</b>	<b>0.92</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	156	0	1.67	70	1.54	0.13
	KWHEP HPS(IPP)	1000	0	600	300	10.72	447	12.57	-1.84
	Malana Stg-II HPS	100	0	36	37	0.84	35	0.00	0.84
	Shree Cement TPS	300	0	133	135	3.24	135	2.70	0.54
	<b>Sub Total (G)</b>	<b>1592</b>	<b>0</b>	<b>925</b>	<b>472</b>	<b>16.48</b>	<b>686</b>	<b>16.81</b>	<b>-0.33</b>
<b>H. Total Regional Entities (A-G)</b>	<b>21535</b>	<b>15271</b>	<b>16820</b>	<b>13674</b>	<b>330.31</b>	<b>13763</b>	<b>326.13</b>	<b>4.17</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	1040	840	20.92	871
	Guru Nanak Dev TPS(Bhatinda)	440	216	216	4.64	193
	Guru Hargobind Singh TPS(L.mbt)	920	959	967	21.34	889
	Thermal (Total)	2620	2215	2023	46.89	1954
	Total Hydro	1148	660	672	16.05	669
	<b>Total Punjab</b>	<b>3768</b>	<b>2875</b>	<b>2695</b>	<b>62.94</b>	<b>2622</b>
Haryana	Panipat TPS	1367	990	1087	25.31	1054
	DCRTPP (Yamuna nagar)	600	0	0	0.00	0
	Faridabad GPS (NTPC)	432	367	353	8.86	369
	RGTPP (khedar) (IPP)	1200	429	556	12.77	532
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajar(CLP)	1320	615	581	14.89	620
	Thermal (Total)	4944	2401	2577	61.83	2576
	Total Hydro	62	12	24	0.87	36
	<b>Total Haryana</b>	<b>5006</b>	<b>2413</b>	<b>2601</b>	<b>62.70</b>	<b>2613</b>
Rajasthan	kota TPS	1240	1168	1144	27.13	1130
	suratgarh TPS	1500	1112	1138	26.94	1122
	Chabra TPS	500	206	198	4.99	208
	Dholpur GPS	330	148	135	3.14	131
	Ramgarh GPS	111	0	0	0.00	0
	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	5.62	234
	VSLP LTPS (IPP)	135	0	0	0.00	0
	Thermal (Total)	5156	2864	2845	67.81	2826
	Total Hydro	550	16	0	0.07	3
	Wind power	1843	349	592	12.62	526
	Biomass	91	62	62	1.42	59
	Solar	128	0	0	0.00	0
	Renewable/Others (Total)	2062	411	654	14.11	588
	<b>Total Rajasthan</b>	<b>7767</b>	<b>3291</b>	<b>3499</b>	<b>81.99</b>	<b>3416</b>
	UP	Anpara TPS	1630	1145	1144	24.90
Obra TPS		1382	331	322	7.30	304
Paricha TPS		640	395	349	7.70	321
Panki TPS		210	155	145	3.20	133
Harduaganj TPS		665	236	250	5.10	213
Tanda TPS (NTPC)		440	287	188	5.42	226
Roza TPS (IPP)		1200	694	693	16.63	693
Anpara-C (IPP)		1200	373	297	5.43	226
Bajaj Energy Pvt.Ltd(IPP) TPS		450	196	311	5.09	212
Thermal (Total)		7817	3812	3699	80.76	3365
Vishnuparyag HPS (IPP)		400	203	204	4.72	197
Other Hydro		527	233	0	5.09	212
Cogeneration		981	300	300	7.20	300
<b>Total UP</b>		<b>9725</b>	<b>4548</b>	<b>4203</b>	<b>97.77</b>	<b>3877</b>
Uttarakhand		Total Hydro	1303	699	673	15.85
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>699</b>	<b>673</b>	<b>15.85</b>	<b>661</b>
Delhi	Rajghat TPS	135	57	57	1.32	55
	Delhi Gas Turbine	282	224	233	5.58	233
	Pragati Gas Turbine	330	278	293	7.08	295
	Rithala GPS	108	30	30	0.75	31
	Bawana GPS	677	284	287	6.97	291
	Badarpur TPS (NTPC)	705	465	455	9.78	407
	Thermal (Total)	2237	1338	1355	31.49	1312
	<b>Total Delhi</b>	<b>2237</b>	<b>1338</b>	<b>1355</b>	<b>31.49</b>	<b>1312</b>
HP	Baspa HPS (IPP)	330	28	57	2.40	100
	Malana HPS (IPP)	86	35	11	0.78	33
	Other Hydro	589	373	374	9.37	391
	<b>Total HP</b>	<b>1005</b>	<b>436</b>	<b>442</b>	<b>13</b>	<b>523</b>
J & K	Baglihar HPS (IPP)	450	438	436	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>604</b>	<b>591</b>	<b>14.26</b>	<b>594</b>
<b>Total State Control Area Generation</b>		<b>31767</b>	<b>16204</b>	<b>16059</b>	<b>379.55</b>	<b>15618</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>1540</b>	<b>3209</b>	<b>69.08</b>	<b>2878</b>
<b>Total Regional Availability(Gross)</b>		<b>53302</b>	<b>34564</b>	<b>32942</b>	<b>778.94</b>	<b>32259</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	10133	7701	4942	127.98	5332
State Control Area Hydro	5368	2660	2402	64.74	2698
<b>Total Regional Hydro</b>	<b>15500</b>	<b>10361</b>	<b>7344</b>	<b>192.72</b>	<b>8030</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	200	200	400	1.32	6.61	-5.29
Gwalior-Agra (D/C)	548	829	1304	0	22.10	0.00	22.10
Zerda-Kankroli	-79	16	210	111	0.61	0.00	0.61
Zerda-Bhinmal	-32	41	287	119	1.34	0.00	1.34
Malanpur-Auraiya	-64	-30	0	112	0.00	0.62	-0.62
Badod-Kota/Morak	52	47	95	0	1.13	0.00	1.13
<b>Sub Total WR</b>	<b>25</b>	<b>1103</b>			<b>26.50</b>	<b>7.23</b>	<b>19.28</b>
Pusauli Bypass	-165	170	297	165	2.64	0.21	2.43
MZP- GKP (D/C)	602	752	966	0	18.48	0.00	18.48
Patna-Balia(D/C)	542	337	742	0	10.58	0.00	10.58
B'Sharif-Balia (D/C)	377	448	586	0	10.66	0.00	10.66
Barh - Balia(D/C)	0	337	364	0	5.28	0.00	5.28
Pusauli-Balia	0	0	29	0	0.07	0.00	0.07
Gaya-Fatehpur (765 Kv)	0	0	0	0	0.00	0.00	0.00
Pusauli-Sahupuri	151	34	156	0	2.94	0.00	2.94
K'nasa-Sahupuri	48	60	60	0	0.10	0.00	0.10
Son Ngr-Rihand	-40	-32	0	47	0.00	0.72	-0.72
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>1515</b>	<b>2106</b>			<b>50.74</b>	<b>0.93</b>	<b>49.81</b>
<b>Total IR Exch</b>	<b>1540</b>	<b>3209</b>			<b>77.24</b>	<b>8.16</b>	<b>69.08</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
35.56	0.74	36.30	-1.62	0.96	2.13	4.43	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
39.81	1.93	41.73	49.81	19.28	69.08	10.00	17.35	27.35

**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	0.70	1.30	18.00	61.20	82.00	38.80	1.00	0.00

<----- Frequency (Hz) ----->				Average Frequency Hz	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX (Hz)	MIN (Hz)
50.10	6.04	49.05	22.07	49.65	1.55	0.17	50.04	49.36

**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	408	06:35	397	00:06	0.0	0.0	0.0	0.0
Gorakhpur	400	425	05:42	411	02:19	0.0	0.0	0.5	0.0
Bareilly	400	415	05:52	395	23:07	0.0	0.0	0.0	0.0
Kanpur	400	412	06:31	397	23:03	0.0	0.0	0.0	0.0
Dadri	400	415	06:38	399	07:56	45.7	45.7	0.0	0.0
Ballabgarh	400	417	06:38	403	23:06	0.0	0.0	0.0	0.0
Bawana	400	417	06:44	403	14:16	0.0	0.0	0.0	0.0
Bassi	400	421	00:00	401	17:55	0.0	0.0	0.0	0.0
Hissar	400	410	18:48	396	11:32	0.0	0.0	0.0	0.0
Moga	400	419	04:04	403	11:34	0.0	0.0	0.0	0.0
Abdullapur	400	418	04:03	407	09:15	0.0	0.0	0.0	0.0
Nalagarh	400	417	04:03	401	09:36	0.0	0.0	0.0	0.0
Kishenpur	400	415	04:05	399	21:10	0.0	0.0	0.0	0.0
Wagoora	400	407	03:53	385	21:09	0.0	11.0	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	470.67	277.56	480.24	468.02	424.02	635.20
Pong	426.72	384.05	402.57	281.22	411.05	534.20	66.66	177.23
Tehri	829.79	740.04	748.15	40.00	818.65	982.26	108.40	193.00
Koteshwar	612.50	598.50	609.50	4.95	NA	NA	170.00	166.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	206.66	241.85
Rihand	268.22	252.98	257.19	165.90	254.33	50.20	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	500.60	NA	510.28	NA	227.33	302.28

\* NA: Not Available

**IX. System Constraints:**

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

**XI. Weather Conditions For 15.05.2012 :**

Normal

**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 : 15.05.2012

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER