

# पॉवर सिस्टम ऑपरेशन कापोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)

## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 28.07.2011  
Date of Reporting : 29.07.2011

### 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
34888	2649	37537	49.66	36162	0	36162	49.98	836.6	29.59

\* Half hourly (two 15 minutes block-one block before and after the designated time) average frequency

### II. A. State's Load Energy 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	51.59	21.78		73.37	106.99	116.91	9.92	190.27	12.35
Haryana	53.48	0.82		54.30	72.77	76.12	3.34	130.42	1.28
Rajasthan	63.08	0.00	11.74	74.82	42.50	51.28	8.77	126.10	0.00
Delhi	27.27			27.27	78.45	65.45	-13.00	92.71	0.07
UP	58.87	12.60	1.20	72.67	141.21	141.61	0.40	214.28	15.75
Uttarakhand		20.92		20.92	10.52	6.86	-3.66	27.78	0.14
HP		24.14		24.14	-1.28	-0.89	0.38	23.25	0.00
J & K		14.60	0.00	14.60	12.78	11.79	-0.99	26.39	0.00
Chandigarh				0.00	6.54	5.43	-1.12	5.43	0.00
<b>Total</b>	<b>254.29</b>	<b>94.86</b>	<b>12.94</b>	<b>362.09</b>	<b>470.48</b>	<b>474.53</b>	<b>4.05</b>	<b>836.62</b>	<b>29.59</b>

\* Shortage furnished by the respective constituent.

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

State	Evening Peak (20:00 Hrs) MW				Off Peak (03:00 Hrs) MW				UI/OA/PX [OD/Import: (+ve), UD/Export: (-ve)]	
	Demand Met	Shortage	UI	STOA/PX transaction	Demand Met	Shortage	UI	STOA/PX transaction	Day Energy MU	
Punjab	7970	915	388	1996	8261	0	271	2353	49.50	
Haryana	5552	514	218	1064	5323	0	-95	1070	25.64	
Rajasthan	4646	0	159	-615	5834	0	1162	-146	-4.25	
Delhi	4075	0	-419	251	3355	0	-970	100	6.50	
UP	8920	1150	178	1763	10299	0	797	1763	42.30	
Uttarakhand	1334	70	29	-151	1133	0	-211	-151	-3.62	
HP	917	0	-41	-1712	871	0	-84	-1800	-41.82	
J&K	1231	0	-40	-597	892	0	-132	-597	-14.57	
Chandigarh	243	0	-40	34	194	0	-66	29	1.05	
<b>Total</b>	<b>34888</b>	<b>2649</b>	<b>432</b>	<b>2032</b>	<b>36162</b>	<b>0</b>	<b>672</b>	<b>2621</b>	<b>60.73</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)]	
								Schedule Net MU	UI Net MU
A. NTPC	Singrauli STPS	2000	1900	2068	2038	46.39	1933	45.60	0.79
	Rihand I STPS	1000	953	1050	1051	23.06	961	22.87	0.19
	Rihand II STPS	1000	965	1035	1031	23.33	972	23.16	0.17
	Dadri I STPS	840	800	746	788	17.11	713	16.07	1.04
	Dadri II STPS	980	960	998	956	21.81	909	21.97	-0.16
	Unchahar I TPS	440	401	438	441	9.64	402	9.61	0.03
	Unchahar II TPS	440	398	435	436	9.59	400	9.52	0.07
	Unchahar III TPS	210	196	217	219	4.75	198	4.66	0.10
	I-STPP (Jhajjar)	500	404	0	473	8.41	350	9.67	-1.26
	Dadri GPS	830	556	565	484	11.76	490	11.76	0.00
	Anta GPS	419	387	384	303	7.79	325	7.67	0.12
	Auraiya GPS	663	608	620	518	12.72	530	12.29	0.43
	<b>Sub Total (A)</b>	<b>9322</b>	<b>8528</b>	<b>8556</b>	<b>8738</b>	<b>196.36</b>	<b>8182</b>	<b>194.83</b>	<b>1.53</b>
B. NPC	NAPS	440	178	223	222	4.49	187	4.27	0.21
	RAPS- B	440	372	421	427	9.11	379	8.93	0.18
	RAPS- C	440	420	464	472	9.77	407	10.08	-0.31
	<b>Sub Total (B)</b>	<b>1320</b>	<b>970</b>	<b>1108</b>	<b>1121</b>	<b>23.36</b>	<b>973</b>	<b>23.28</b>	<b>0.08</b>
C. NHPC	Chamera I HPS	540	534	540	540	12.83	534	12.81	0.01
	Chamera II HPS	300	297	303	303	7.21	301	7.27	-0.06
	Bairasuil HPS	180	179	179	140	2.71	113	2.98	-0.27
	Salal-HPS	690	631	631	631	15.19	633	15.14	0.04
	Tanakpur-HPS	94	94	95	95	2.23	93	2.23	-0.01
	Uri-HPS	480	293	354	258	7.13	297	7.11	0.02
	Dhauliganga-HPS	280	277	280	276	6.65	277	6.72	-0.07
	Dulhasti-HPS	390	387	408	393	7.18	299	9.36	-2.18
	Sewa-II HPS	120	119	120	0	1.15	48	1.25	-0.10
	<b>Sub Total (C)</b>	<b>3074</b>	<b>2809</b>	<b>2910</b>	<b>2636</b>	<b>62.28</b>	<b>2595</b>	<b>64.88</b>	<b>-2.60</b>
	D. NJPC	Nathpa Jhakri	1500	1600	1617	1616	38.50	1604	38.40
<b>Sub Total (D)</b>		<b>1500</b>	<b>1600</b>	<b>1617</b>	<b>1616</b>	<b>38.50</b>	<b>1604</b>	<b>38.40</b>	<b>0.10</b>
E. THDC	Tehri HPS	1000	825	825	822	19.59	816	19.50	0.09
	Koteshwar HPS	100	0	0	0	0.00	0	0.00	0.00
	<b>Sub Total (E)</b>	<b>1100</b>	<b>825</b>	<b>825</b>	<b>822</b>	<b>19.59</b>	<b>816</b>	<b>19.50</b>	<b>0.09</b>
F. BBMB	Bhakra HPS	1480	974	1076	968	23.87	995	23.39	0.48
	Dehar HPS	990	526	495	495	12.17	507	12.64	-0.47
	Ponq HPS	396	300	366	246	7.55	315	7.20	0.35
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1801</b>	<b>1937</b>	<b>1709</b>	<b>43.59</b>	<b>1816</b>	<b>43.22</b>	<b>0.37</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	192	117	3.45	144	3.32	0.13
	KWHEP HPS(IPP)	500	0	600	600	13.72	572	13.07	0.65
	<b>Sub Total (G)</b>	<b>692</b>	<b>0</b>	<b>792</b>	<b>717</b>	<b>17.17</b>	<b>715</b>	<b>16.39</b>	<b>0.77</b>
<b>H. Total Regional Entities (A-G)</b>	<b>19875</b>	<b>16533</b>	<b>17745</b>	<b>17359</b>	<b>400.85</b>	<b>16702</b>	<b>400.51</b>	<b>0.34</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	1050.00	1260.00	24.72	1030
	Guru Nanak Dev TPS(Bhatinda)	440	295.00	295.00	6.11	254
	Guru Hargobind Singh TPS(L.mbt)	920	942.00	936.00	20.77	865
	Thermal (Total)	2620	2287.00	2491.00	51.59	2150
	Total Hydro	1148	967.00	758.00	21.78	907
	<b>Total Punjab</b>	<b>3768</b>	<b>3254</b>	<b>3249</b>	<b>73.37</b>	<b>3057</b>
Haryana	Panipat TPS	1360	924.00	1180.00	23.24	968
	DCRTPP (Yamuna nagar)	600	442.00	496.00	9.20	383
	Faridabad GPS (NTPC)	432	391.00	400.00	9.52	397
	RGTPP (khedar) (IPP)	1200	651.00	235.00	11.53	481
	Magnum Diesel (IPP)	25	0.00	0.00	0.00	0
	Thermal (Total)	3617	2408.00	2311.00	53.48	2228
	Total Hydro	62	33.00	42.00	0.82	34
	<b>Total Haryana</b>	<b>3679</b>	<b>2441</b>	<b>2353</b>	<b>54.30</b>	<b>2262</b>
Rajasthan	kota TPS	1240	941.00	767.00	20.72	863
	suratgarh TPS	1500	1068.00	881.00	23.14	964
	Chabra TPS	500	222.00	214.00	5.17	215
	Dholpur GPS	330	280.00	268.00	6.74	281
	Ramgarh GPS	113	65.00	65.00	1.62	67
	RAPS A (NPC)	300	172.00	173.00	4.30	179
	Barsingsar (NLC)	250	0.00	0.00	0.00	0
	Giral LTPS (IPP)	250	59.00	90.00	1.41	59
	Rajwest LTPS (IPP)	135	0.00	0.00	0.00	0
	VSLP LTPS (IPP)	135	0.00	0.00	0.00	0
	Thermal (Total)	4753	2807.00	2458.00	63.08	2628
	Total Hydro	550	0.00	0.00	0.00	0
	Wind power	1294	267.00	369.00	11.11	463
	Biomass	71	27.00	27.00	0.63	26
	Renewable/Others (Total)	1365	294	396	11.74	489
		<b>Total Rajasthan</b>	<b>6668</b>	<b>3101</b>	<b>2854</b>	<b>74.82</b>
UP	Anpara TPS	1630	905	1432	22.20	925
	Obra TPS	1442	326	491	8.80	367
	Paricha TPS	640	411	403	8.80	367
	Panki TPS	210	67	51	1.30	54
	Harduaganj TPS	375	0	0	0.00	0
	Tanda TPS (NTPC)	440	190	199	4.90	204
	Roza TPS (IPP)	600	555	545	12.88	536
	Thermal (Total)	5337	2454	3121	58.87	2453
	Vishnuparyag HPS (IPP)	400	436	436	10.46	436
	Other Hydro	527	75	22	2.15	89
	Cogeneration	951	50	50	1.20	50
		<b>Total UP</b>	<b>7215</b>	<b>3015</b>	<b>3629</b>	<b>72.67</b>
Uttarakhand	Total Hydro	1303	843	908	20.92	872
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>843</b>	<b>908</b>	<b>20.92</b>	<b>872</b>
Delhi	Rajghat TPS	135	102	62	2.17	90
	Delhi Gas Turbine	282	146	146	3.68	153
	Praagati Gas Turbine	330	276	287	6.83	284
	Rithala GPS	108	52	29	1.04	43
	Bawana GPS	440	0	0	0.00	0
	Badarpur TPS (NTPC)	705	635	575	13.56	565
	Thermal (Total)	2000	1211	1099	27.27	1136
	<b>Total Delhi</b>	<b>2000</b>	<b>1211</b>	<b>1099</b>	<b>27.27</b>	<b>1136</b>
HP	Baspa HPS (IPP)	330	330	330	7.92	330
	Malana HPS (IPP)	101	106	105	2.52	105
	Other Hydro	571	585	585	13.71	571
		<b>Total HP</b>	<b>1002</b>	<b>1021</b>	<b>1020</b>	<b>24.14</b>
J & K	Baglihar HPS (IPP)	450	437	437	10.50	438
	Other Hydro	323	154	190	4.10	171
	Gas/Diesel/Others	183	0	0	0.00	0
		<b>Total J &amp; K</b>	<b>956</b>	<b>591</b>	<b>627</b>	<b>14.60</b>
<b>Total State Control Area Generation</b>		<b>26591</b>	<b>15477</b>	<b>15739</b>	<b>362.09</b>	<b>14652</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>3792</b>	<b>4474</b>	<b>93.32</b>	<b>3888</b>
<b>Total Regional Availability(Gross)</b>		<b>46466</b>	<b>37014</b>	<b>37572</b>	<b>856.26</b>	<b>35242</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	9233	8081	7500	181.13	7547
State Control Area Hydro	5365	3530	3377	84.41	3517
<b>Total Regional Hydro</b>	<b>14597</b>	<b>11611</b>	<b>10877</b>	<b>265.53</b>	<b>11064</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	300	500	500	0	8.21	0.00	8.21
Gwalior-Agra (D/C)	1009	1002	1238	0	25.38	0.00	25.38
Zerda-Kankroli	90	193	213	0	2.53	0.00	2.53
Zerda-Bhinmal	135	348	368	0	3.48	0.00	3.48
Malanpur-Auraiya	-40	-54	0	77	0.00	0.61	-0.61
Badod-Kota/Morak	3	231	239	25	2.09	0.00	2.09
<b>Sub Total WR</b>	<b>1494</b>	<b>1989</b>			<b>39.60</b>	<b>0.61</b>	<b>38.99</b>
Pusauli Bypass	156	47	184	77	2.12	0.17	1.96
MZP- GKP (D/C)	1086	1170	1216	0	25.69	0.00	25.69
Patna-Balia(D/C)	589	549	612	0	12.18	0.00	12.18
B'Sharif-Balia (D/C)	325	572	635	0	11.01	0.00	11.01
Pusauli-Sahupuri	178	179	192	0	4.29	0.00	4.29
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-36	-32	0	38	0.00	0.80	-0.80
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>2298</b>	<b>2485</b>			<b>55.29</b>	<b>0.96</b>	<b>54.33</b>
<b>Total IR Exch</b>	<b>3792</b>	<b>4474</b>			<b>94.89</b>	<b>1.57</b>	<b>93.32</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
28.13	3.79	31.92	24.95	29.15	-0.62	0.99	0.00	0.00

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
56.24	29.62	85.87	54.33	38.99	93.32	-1.92	9.37	7.45

**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	2.60	17.00	97.10	82.70	10.90	0.30

<----- 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				
50.32	18.03	49.30	19.13	49.84	0.49	0.15	50.19	49.59

**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	405	07:05	0	09:51	38.8	38.8	0.0	0.0
Gorakhpur	400	434	18:28	414	22:25	0.0	0.0	67.6	9.1
Bareilly	400	423	08:00	396	00:23	0.0	0.0	2.2	0.0
Kanpur	400	418	09:00	396	00:12	0.0	0.0	0.0	0.0
Dadri	400	411	08:04	392	15:20	0.0	0.0	0.0	0.0
Ballabgarh	400	417	08:03	394	15:19	0.0	0.0	0.0	0.0
Bawana	400	412	08:03	391	14:59	0.0	0.0	0.0	0.0
Bassi	400	426	04:03	405	00:05	0.0	0.0	14.1	0.0
Hissar	400	407	08:03	388	15:16	0.0	1.8	0.0	0.0
Moga	400	412	08:09	393	15:19	0.0	0.0	0.0	0.0
Abdullapur	400	411	08:06	393	15:00	0.0	0.0	0.0	0.0
Nalagarh	400	410	20:22	396	15:11	0.0	0.0	0.0	0.0
Kishenpur	400	415	03:56	399	15:14	0.0	0.0	0.0	0.0
Wagoora	400	410	03:51	387	19:48	0.0	4.6	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 (m <sup>3</sup> /s)	Usage (m <sup>3</sup> /s)
Bhakra	513.59	445.62	497.49	994.96	489.00	700.02	1764.45	769.45
Pong	426.72	384.05	414.40	656.23	400.04	216.87	745.64	459.75
Tehri	829.79	740.04	781.18	345.94	NA	NA	642.49	532.00
Koteswar	612.50	598.50	605.30	2.46	NA	NA	532.00	0.00
Chamera-I	760.00	748.75	755.49	12.20	754.97	NA	383.84	247.75
Rihand	268.22	252.98	258.68	234.80	255.76	106.50	NA	NA
RPS	352.80	343.81	346.64	NA	NA	NA	NA	NA
Jawahar Sagar	298.70	295.78	297.48	NA	NA	NA	NA	67.90
RSD	527.91	487.91	509.08	NA	510.10	NA	531.28	412.60

**IX. System Constraints:**

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

**XI. Weather Conditions For 28.07.2011 :**

1 : Rains in Rajasthan , Haryana , HP, J&K & NCR.

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

**XIII. Synchronisation of new 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 : 28.07.2011

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER