

# पॉवर सिस्टम ऑपरेशन कापोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)

## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 21.07.2011  
Date of Reporting : 22.07.2011

### 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
37117	1554	38671	49.78	35985	0	35985	50.15	864.5	20.07

\* Half hourly (two 15 minutes block-one block each 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	52.89	20.67		73.56	120.07	119.83	-0.24	193.39	6.63
Haryana	70.12	0.95		71.07	69.74	68.81	-0.93	139.88	0.00
Rajasthan	66.41	0.20	21.70	88.30	33.48	40.12	6.64	128.42	0.64
Delhi	23.69			23.69	77.69	74.35	-3.34	98.04	0.09
UP	67.22	12.26	1.20	80.68	139.71	138.63	-1.08	219.31	12.22
Uttarakhand		19.75		19.75	7.97	9.89	1.91	29.63	0.12
HP		22.58		22.58	-1.30	-0.07	1.23	22.52	0.38
J & K		14.88	0.00	14.88	12.38	12.62	0.24	27.50	0.00
Chandigarh				0.00	6.46	5.83	-0.63	5.83	0.00
<b>Total</b>	<b>280.32</b>	<b>91.29</b>	<b>22.90</b>	<b>394.51</b>	<b>466.21</b>	<b>470.00</b>	<b>3.79</b>	<b>864.51</b>	<b>20.07</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				Day Energy MU	
	Demand Met	Shortage	UI	STOA/PX transaction	Demand Met	Shortage	UI	STOA/PX transaction	STOA/PX transaction	
Punjab	8218	875	70	2024	8174	0	-5	2764	60.78	
Haryana	6077	0	109	1171	5672	0	-159	1179	27.67	
Rajasthan	5271	59	-119	-210	5301	0	335	-547	-11.45	
Delhi	4448	0	-186	385	3600	0	81	200	9.56	
UP	9329	550	497	1763	10060	0	168	1763	42.29	
Uttarakhand	1359	70	171	-151	1135	0	-34	-151	-3.62	
HP	901	0	17	-1705	862	0	-23	-1772	-41.45	
J&K	1247	0	13	-597	976	0	-76	-590	-14.53	
Chandigarh	267	0	-18	29	205	0	-30	54	1.23	
<b>Total</b>	<b>37117</b>	<b>1554</b>	<b>554</b>	<b>2709</b>	<b>35985</b>	<b>0</b>	<b>257</b>	<b>2901</b>	<b>70.49</b>	

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

### III. Regional Entities :

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
<b>A. NTPC</b>								
Singrauli STPS	2000	1720	1853	1822	41.77	1741	41.28	0.49
Rihand I STPS	1000	925	1051	1025	21.73	905	21.53	0.19
Rihand II STPS	1000	965	1032	1017	22.80	950	22.42	0.38
Dadri I STPS	840	800	865	791	17.06	711	17.25	-0.19
Dadri II STPS	980	960	1022	893	20.37	849	22.21	-1.83
Unchahar I TPS	440	377	299	408	8.82	367	8.92	-0.10
Unchahar II TPS	440	398	437	398	9.33	389	9.22	0.10
Unchahar III TPS	210	196	213	220	4.64	193	4.54	0.10
I-STPP (Jhajjar)	500	470	403	457	10.57	440	10.82	-0.25
Dadri GPS	830	557	557	538	11.83	493	11.63	0.19
Anta GPS	419	383	256	259	5.99	250	6.62	-0.64
Auraiya GPS	663	611	470	477	10.02	418	10.08	-0.06
<b>Sub Total (A)</b>	<b>9322</b>	<b>8362</b>	<b>8458</b>	<b>8305</b>	<b>184.92</b>	<b>7705</b>	<b>186.53</b>	<b>-1.61</b>
<b>B. NPC</b>								
NAPS	440	185	223	222	4.48	187	4.44	0.04
RAPS- B	440	384	430	433	9.89	412	9.22	0.67
RAPS- C	440	410	464	477	10.17	424	9.84	0.33
<b>Sub Total (B)</b>	<b>1320</b>	<b>979</b>	<b>1117</b>	<b>1132</b>	<b>24.55</b>	<b>1023</b>	<b>23.50</b>	<b>1.05</b>
<b>C. NHPC</b>								
Chamera I HPS	540	534	540	540	12.83	535	12.78	0.05
Chamera II HPS	300	297	302	302	7.22	301	7.22	0.00
Bairasuil HPS	180	179	179	20	2.35	98	2.17	0.17
Salal-HPS	690	631	631	631	15.18	632	15.13	0.04
Tanakpur-HPS	94	94	94	93	2.19	91	2.24	-0.06
Uri-HPS	480	375	356	348	8.59	358	8.75	-0.16
Dhauliganga-HPS	280	179	283	0	4.71	196	4.39	0.32
Dulhasti-HPS	390	387	408	334	9.31	388	9.35	-0.04
Sewa-II HPS	120	119	120	0	0.65	27	0.63	0.02
<b>Sub Total (C)</b>	<b>3074</b>	<b>2794</b>	<b>2913</b>	<b>2268</b>	<b>63.01</b>	<b>2626</b>	<b>62.66</b>	<b>0.35</b>
<b>D. NJPC</b>								
Nathpa Jhakri	1500	1600	1617	1613	38.36	1599	38.40	-0.04
<b>Sub Total (D)</b>	<b>1500</b>	<b>1600</b>	<b>1617</b>	<b>1613</b>	<b>38.36</b>	<b>1599</b>	<b>38.40</b>	<b>-0.04</b>
<b>E. THDC</b>								
Tehri HPS	1000	770	775	761	17.87	744	17.75	0.12
Koteshwar HPS	100	0	0	0	0.00	0	0.00	0.00
<b>Sub Total (E)</b>	<b>1100</b>	<b>770</b>	<b>775</b>	<b>761</b>	<b>17.87</b>	<b>744</b>	<b>17.75</b>	<b>0.12</b>
<b>F. BBMB</b>								
Bhakra HPS	1480	900	1077	861	22.03	918	21.60	0.43
Dehar HPS	990	601	660	640	14.95	623	14.42	0.53
Ponq HPS	396	294	366	246	7.35	306	7.07	0.28
<b>Sub Total (F)</b>	<b>2866</b>	<b>1795</b>	<b>2103</b>	<b>1747</b>	<b>44.33</b>	<b>1847</b>	<b>43.09</b>	<b>1.24</b>
<b>G. IPP(s)/JV(s)</b>								
ADHPL HPS(IPP)	192	0	181	171	3.49	145	3.31	0.17
KWHEP HPS(IPP)	500	0	600	600	13.55	564	14.26	-0.71
<b>Sub Total (G)</b>	<b>692</b>	<b>0</b>	<b>781</b>	<b>771</b>	<b>17.03</b>	<b>710</b>	<b>17.57</b>	<b>-0.54</b>
<b>H. Total Regional Entities (A-G)</b>	<b>19875</b>	<b>16300</b>	<b>17764</b>	<b>16597</b>	<b>390.07</b>	<b>16253</b>	<b>389.50</b>	<b>0.57</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	1260.00	1050.00	26.78	1116	
	Guru Nanak Dev TPS(Bhatinda)	440	255.00	245.00	5.33	222	
	Guru Hargobind Singh TPS(L.mbt)	920	943.00	936.00	20.78	866	
	Thermal (Total)	2620	2458.00	2231.00	52.89	2204	
	Total Hydro	1148	1120.00	758.00	20.67	861	
	<b>Total Punjab</b>	<b>3768</b>	<b>3578</b>	<b>2989</b>	<b>73.56</b>	<b>3065</b>	
Haryana	Panipat TPS	1360	1141.00	1155.00	27.67	1153	
	DCRTPP (Yamuna nagar)	600	487.00	335.00	10.50	438	
	Faridabad GPS (NTPC)	432	381.00	323.00	8.38	349	
	RGTPP (khedar) (IPP)	1200	892.00	963.00	23.57	982	
	Magnum Diesel (IPP)	25	0.00	0.00	0.00	0	
	Thermal (Total)	3617	2901.00	2776.00	70.12	2922	
	Total Hydro	62	37.00	41.00	0.95	39	
		<b>Total Haryana</b>	<b>3679</b>	<b>2938</b>	<b>2817</b>	<b>71.07</b>	<b>2961</b>
Rajasthan	kota TPS	1240	875.00	891.00	21.82	909	
	suratgarh TPS	1500	1109.00	1128.00	26.78	1116	
	Chabra TPS	500	217.00	220.00	5.14	214	
	Dholpur GPS	330	272.00	280.00	6.79	283	
	Ramgarh GPS	113	64.00	63.00	1.60	67	
	RAPS A (NPC)	300	173.00	172.00	4.27	178	
	Barsingsar (NLC)	250	0.00	0.00	0.00	0	
	Giral LTPS (IPP)	250	0.00	0.00	0.00	0	
	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	2710.00	2754.00	66.41	2767	
	Total Hydro	550	14.00	0.00	0.20	8	
	Wind power	1294	847.00	915.00	21.18	882	
	Biomass	71	22.00	22.00	0.52	22	
	Renewable/Others (Total)	1365	869	937	21.70	904	
		<b>Total Rajasthan</b>	<b>6668</b>	<b>3593</b>	<b>3691</b>	<b>88.30</b>	<b>3679</b>
UP	Anpara TPS	1630	1049	1562	31.10	1296	
	Obra TPS	1442	479	235	7.81	325	
	Paricha TPS	640	391	391	8.60	358	
	Panki TPS	210	68	72	1.60	67	
	Harduaganj TPS	375	0	0	0.00	0	
	Tanda TPS (NTPC)	440	196	277	5.93	247	
	Roza TPS (IPP)	600	561	546	12.19	508	
	Thermal (Total)	5337	2744	3083	67.22	2801	
	Vishnuparyag HPS (IPP)	400	436	436	10.45	435	
	Other Hydro	527	94	19	1.81	76	
	Cogeneration	951	50	50	1.20	50	
		<b>Total UP</b>	<b>7215</b>	<b>3324</b>	<b>3588</b>	<b>80.68</b>	<b>2926</b>
	Uttarakhand	Total Hydro	1303	811	888	19.75	823
<b>Total Uttarakhand</b>		<b>1303</b>	<b>811</b>	<b>888</b>	<b>19.75</b>	<b>823</b>	
Delhi	Rajghat TPS	135	0	0	0.00	0	
	Delhi Gas Turbine	282	145	149	3.74	156	
	Praagati Gas Turbine	330	290	301	7.35	306	
	Rithala GPS	108	48	29	1.14	47	
	Bawana GPS	440	0	0	0.00	0	
	Badarpur TPS (NTPC)	705	585	495	11.46	478	
	Thermal (Total)	2000	1068	974	23.69	987	
	<b>Total Delhi</b>	<b>2000</b>	<b>1068</b>	<b>974</b>	<b>23.69</b>	<b>987</b>	
HP	Baspa HPS (IPP)	330	330	330	7.92	330	
	Malana HPS (IPP)	101	105	105	2.49	104	
	Other Hydro	571	578	553	12.17	507	
		<b>Total HP</b>	<b>1002</b>	<b>1013</b>	<b>988</b>	<b>22.58</b>	<b>941</b>
J & K	Baglihar HPS (IPP)	450	438	437	10.50	438	
	Other Hydro	323	178	176	4.38	183	
	Gas/Diesel/Others	183	0	0	0.00	0	
		<b>Total J &amp; K</b>	<b>956</b>	<b>616</b>	<b>613</b>	<b>14.88</b>	<b>620</b>
<b>Total State Control Area Generation</b>		<b>26591</b>	<b>16941</b>	<b>16548</b>	<b>394.51</b>	<b>16002</b>	
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>4446</b>	<b>3855</b>	<b>96.47</b>	<b>4020</b>	
<b>Total Regional Availability(Gross)</b>		<b>46466</b>	<b>39151</b>	<b>37000</b>	<b>881.06</b>	<b>36275</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	9233	8189	7160	180.60	7525
State Control Area Hydro	5365	3705	3307	80.84	3368
<b>Total Regional Hydro</b>	<b>14597</b>	<b>11894</b>	<b>10467</b>	<b>261.44</b>	<b>10894</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	400	500	0	10.43	0.00	10.43
Gwalior-Agra (D/C)	1215	1233	1536	0	30.27	0.00	30.27
Zerda-Kankroli	243	224	447	0	6.09	0.00	6.09
Zerda-Bhinmal	196	150	401	0	2.41	0.00	2.41
Malanpur-Auraiya	18	40	60	0	1.50	0.00	1.50
Badod-Kota/Morak	101	90	227	0	2.61	0.00	2.61
<b>Sub Total WR</b>	<b>2072</b>	<b>2047</b>			<b>50.70</b>	<b>0.00</b>	<b>50.70</b>
Pusaui Bypass	11	-170	129	192	0.29	2.25	-1.96
MZP- GKP (D/C)	1154	942	1284	0	24.52	0.00	24.52
Patna-Balia(D/C)	453	436	632	0	9.42	0.00	9.42
B'Sharif-Balia (D/C)	582	420	735	0	9.64	0.00	9.64
Pusaui-Sahupuri	174	180	181	0	4.15	0.00	4.15
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	0	0	0	0	0.00	0.00	0.00
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>2374</b>	<b>1808</b>			<b>48.02</b>	<b>2.25</b>	<b>45.77</b>
<b>Total IR Exch</b>	<b>4446</b>	<b>3855</b>			<b>98.72</b>	<b>2.25</b>	<b>96.47</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
21.32	3.72	25.04	24.84	35.15	2.35	5.22	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
52.23	40.17	92.40	45.77	50.70	96.47	-6.46	10.54	4.08

**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	2.10	12.20	97.80	87.70	24.80	0.10

<----- 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				
50.21	13.02	49.21	19.11	49.89	0.36	0.16	50.17	49.60

**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	08:03	394	14:06	0.0	0.0	0.0	0.0
Gorakhpur	400	437	07:04	404	14:16	0.0	0.0	77.5	4.5
Bareilly	400	423	08:00	388	14:15	0.0	0.6	2.0	0.0
Kanpur	400	415	09:00	390	14:15	0.0	0.0	0.0	0.0
Dadri	400	410	08:02	385	14:57	0.0	5.7	0.0	0.0
Ballabgarh	400	416	04:00	386	14:15	0.0	4.2	0.0	0.0
Bawana	400	411	08:01	383	14:23	0.0	7.9	0.0	0.0
Bassi	400	425	04:00	393	14:06	0.0	0.0	9.0	0.0
Hissar	400	404	03:59	380	14:14	0.0	15.6	0.0	0.0
Moga	400	408	04:01	383	14:04	0.0	13.6	0.0	0.0
Abdullapur	400	410	03:59	245	16:02	0.2	1.3	0.0	0.0
Nalagarh	400	407	03:38	385	14:13	0.0	9.0	0.0	0.0
Kishenpur	400	407	04:29	387	21:03	0.0	1.1	0.0	0.0
Wagoora	400	407	03:25	382	21:02	0.0	12.3	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	492.80	827.99	480.90	481.64	1212.10	707.92
Pong	426.72	384.05	412.61	588.94	396.16	146.09	543.97	455.48
Tehri	829.79	740.04	774.65	215.76	NA	NA	974.82	507.00
Koteswar	612.50	598.50	604.80	2.25	NA	NA	507.00	NA
Chamera-I	760.00	748.75	756.84	13.00	756.50	NA	356.58	347.78
Rihand	268.22	252.98	257.25	168.50	255.00	NA	NA	NA
RPS	352.80	343.81	345.62	NA	NA	NA	NA	NA
Jawahar Sagar	298.70	295.78	297.70	NA	NA	NA	NA	67.90
RSD	527.91	487.91	508.85	NA	503.20	NA	332.13	369.25

**IX. System Constraints:**

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

**XI. Weather Conditions For 21.07.2011 :**

1 : Hot & Humid weather in in NR.

**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 : 21.07.2011

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER