

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 15.07.2012

Date of Reporting : 16.07.2012

### 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
34622	2363	36985	49.81	36736	1810	38546	49.96	846.6	56.03

\* 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	51.27	13.74		65.01	116.57	120.57	4.01	185.58	8.58
Haryana	59.89	1.07		60.95	65.93	73.63	7.70	134.59	0.00
Rajasthan	58.25	0.00	24.42	82.67	36.81	47.42	10.61	130.09	0.70
Delhi	24.62			24.62	75.42	64.99	-10.43	89.61	0.06
UP	79.43	14.14	2.40	95.97	96.89	123.99	27.10	219.95	43.74
Uttarakhand		19.42		19.42	8.38	10.99	2.61	30.42	0.00
HP		21.44		21.44	2.13	1.22	-0.91	22.66	0.00
J & K		15.03	0.00	15.03	13.70	13.59	-0.11	28.62	2.95
Chandigarh				0.00	6.55	5.07	-1.47	5.07	0.00
<b>Total</b>	<b>273.45</b>	<b>84.84</b>	<b>26.82</b>	<b>385.11</b>	<b>422.38</b>	<b>461.48</b>	<b>39.10</b>	<b>846.58</b>	<b>56.03</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	STOA/PX transaction	
Punjab	8147	338	73	2190	8088	250	107	2125	50.84	
Haryana	5381	0	71	654	5833	0	490	654	15.68	
Rajasthan	5166	0	225	-705	5554	0	224	-712	-16.96	
Delhi	4024	0	42	611	3551	0	-708	621	15.64	
UP	8193	1875	436	-84	10376	1460	2034	16	-0.05	
Uttarakhand	1303	0	134	-116	1283	0	85	-116	-2.78	
HP	772	0	-218	-1462	925	0	-7	-1517	-35.37	
J&K	1406	150	42	-412	926	100	-109	-512	-10.96	
Chandigarh	229	0	-76	40	201	0	-31	0	1.07	
<b>Total</b>	<b>34622</b>	<b>2363</b>	<b>730</b>	<b>715</b>	<b>36736</b>	<b>1810</b>	<b>2084</b>	<b>558</b>	<b>17.09</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	1920	2074	2089	46.69	1945	46.08	0.61
Rihand I STPS	1000	870	960	955	21.07	878	20.77	0.29
Rihand II STPS	1000	970	1043	1041	23.40	975	23.22	0.19
Rihand III STPS	500		0	0	0.00	0		0.00
Dadri I STPS	840	793	685	847	15.73	655	16.12	-0.39
Dadri II STPS	980	892	750	1027	17.45	727	18.21	-0.76
Unchahar I TPS	420	315	350	345	7.37	307	7.34	0.03
Unchahar II TPS	420	315	348	348	7.21	301	7.13	0.08
Unchahar III TPS	210	160	177	176	3.67	153	3.61	0.06
ISTPP (Jhajjar)	1000	940	784	782	16.76	698	17.10	-0.34
Dadri GPS	830	593	498	575	11.05	460	11.04	0.01
Anta GPS	419	388	251	257	5.82	242	5.77	0.05
Auraiya GPS	663	415	298	282	6.40	267	6.23	0.17
<b>Sub Total (A)</b>	<b>10282</b>	<b>8571</b>	<b>8218</b>	<b>8724</b>	<b>182.62</b>	<b>7609</b>	<b>182.62</b>	<b>-0.01</b>
<b>B. NPC</b>								
NAPS	440	259	292	299	6.21	259	6.22	-0.01
RAPS- B	440	396	444	445	9.62	401	9.50	0.11
RAPS- C	440	200	231	233	4.97	207	4.80	0.17
<b>Sub Total (B)</b>	<b>1320</b>	<b>855</b>	<b>967</b>	<b>977</b>	<b>20.80</b>	<b>867</b>	<b>20.52</b>	<b>0.28</b>
<b>C. NHPC</b>								
Chamera I HPS	540	534	540	540	12.76	532	12.76	-0.01
Chamera II HPS	300	300	302	304	7.13	297	7.25	-0.12
Chamera III HPS	231	231	237	232	5.56	232	5.49	0.07
Bairasuil HPS	180	182	182	30	2.07	86	2.35	-0.28
Salal-HPS	690	663	662	662	15.93	664	15.91	0.02
Tanakpur-HPS	94	97	93	93	2.22	92	2.23	-0.01
Uri-HPS	480	477	480	480	11.50	479	11.56	-0.06
Dhauliganga-HPS	280	269	283	215	5.96	248	6.07	-0.12
Dulhasi-HPS	390	286	405	0	4.52	188	4.24	0.28
Sewa-II HPS	120	80	40	39	0.56	23	0.61	-0.04
<b>Sub Total (C)</b>	<b>3305</b>	<b>3118</b>	<b>3224</b>	<b>2595</b>	<b>68.19</b>	<b>2841</b>	<b>68.46</b>	<b>-0.27</b>
<b>D.NJPC</b>								
Nathpa Jhakri	1500	1605	1612	1610	38.62	1609	38.52	0.10
<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>1612</b>	<b>1610</b>	<b>38.62</b>	<b>1609</b>	<b>38.52</b>	<b>0.10</b>
<b>E. THDC</b>								
Tehri HPS	1000	453	665	155	5.90	246	6.00	-0.10
Koteshwar HPS	400	230	89	160	2.30	96	2.30	0.00
<b>Sub Total (E)</b>	<b>1400</b>	<b>683</b>	<b>754</b>	<b>315</b>	<b>8.20</b>	<b>342</b>	<b>8.30</b>	<b>-0.10</b>
<b>F. BBMB</b>								
Bhakra HPS	1480	843	1181	684	20.94	873	20.24	0.70
Dehar HPS	990	624	660	650	15.11	630	14.98	0.14
Pong HPS	396	202	306	180	5.02	209	5.01	0.01
<b>Sub Total (F)</b>	<b>2866</b>	<b>1670</b>	<b>2147</b>	<b>1514</b>	<b>41.07</b>	<b>1711</b>	<b>40.22</b>	<b>0.85</b>
<b>G. IPP(s)/JV(s)</b>								
ADHPL HPS(IPP)	192	0	196	200	4.33	180	4.69	-0.36
KWHEP HPS(IPP)	1000	0	1100	1200	26.80	1117	28.39	-1.59
Malana Stg-II HPS	100	0	104	96	2.32	97	0.00	2.32
Shree Cement TPS	300	0	238	206	5.41	226	5.23	0.18
Budhil HPS(IPP)	70	0	36	36	0.61	25		0.61
<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1638</b>	<b>1738</b>	<b>39.47</b>	<b>1644</b>	<b>38.31</b>	<b>1.16</b>
<b>H. Total Regional Entities (A-G)</b>	<b>22336</b>	<b>16502</b>	<b>18560</b>	<b>17473</b>	<b>398.96</b>	<b>16623</b>	<b>396.96</b>	<b>2.00</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	1251	1248	26.97	1124	
	Guru Nanak Dev TPS(Bhatinda)	440	211	210	4.27	178	
	Guru Hargobind Singh TPS(L.mbt)	920	955	920	20.03	835	
	Thermal (Total)	2620	2417	2378	51.27	2136	
	Total Hydro	1148	610	783	13.74	572	
	<b>Total Punjab</b>	<b>3768</b>	<b>3027</b>	<b>3161</b>	<b>65.01</b>	<b>2709</b>	
Haryana	Panipat TPS	1367	1076	1100	26.18	1091	
	DCRTPP (Yamuna nagar)	600	0	0	0.00	0	
	Faridabad GPS (NTPC)	432	305	384	7.21	301	
	RGTPP (kheadar) (IPP)	1200	504	540	12.37	516	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	1320	574	549	14.12	588	
	Thermal (Total)	4944	2459	2573	59.89	2495	
	Total Hydro	62	31	31	1.07	44	
	<b>Total Haryana</b>	<b>5006</b>	<b>2490</b>	<b>2604</b>	<b>60.95</b>	<b>2540</b>	
	Rajasthan	kota TPS	1240	887	881	20.65	860
suratgarh TPS		1500	812	891	20.78	866	
Chabra TPS		500	0	0	0.00	0	
Dholpur GPS		330	94	98	1.97	82	
Ramgarh GPS		111	56	55	1.37	57	
RAPS A (NPC)		300	177	177	4.12	172	
Barsingsar (NLC)		250	103	102	2.56	107	
Giral LTPS		250	60	60	1.18	49	
Rajwest LTPS (IPP)		540	243	243	5.62	234	
VSLP LTPS (IPP)		135	0	0	0.00	0	
Thermal (Total)		5156	2432	2507	58.25	2427	
Total Hydro		550	0	0	0.00	0	
Wind power		1843	851	1343	23.64	985	
Biomass		91	28	28	0.67	28	
Solar		128	0	0	0.12	5	
Renewable/Others (Total)		2062	879	1371	24.42	1018	
<b>Total Rajasthan</b>		<b>7767</b>	<b>3311</b>	<b>3878</b>	<b>82.67</b>	<b>3445</b>	
UP		Anpara TPS	1630	800	883	20.50	854
		Obra TPS	1382	463	449	11.20	467
	Paricha TPS	890	414	562	12.10	504	
	Panki TPS	210	63	63	1.40	58	
	Harduaganj TPS	665	128	32	1.40	58	
	Tanda TPS (NTPC)	440	295	298	7.21	300	
	Roza TPS (IPP)	1200	547	551	13.10	546	
	Anpara-C (IPP)	1200	311	305	7.57	315	
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	190	203	4.95	206	
	Thermal (Total)	8067	3211	3346	79.43	3309	
	Vishnuparyag HPS (IPP)	400	436	436	10.47	436	
	Other Hydro	527	127	0	3.68	153	
	Cogeneration	981	100	100	2.40	100	
	<b>Total UP</b>	<b>9975</b>	<b>3874</b>	<b>3882</b>	<b>95.97</b>	<b>3563</b>	
	Uttarakhand	Total Hydro	1303	800	863	19.42	809
<b>Total Uttarakhand</b>		<b>1303</b>	<b>800</b>	<b>863</b>	<b>19.42</b>	<b>809</b>	
Delhi	Rajghat TPS	135	39	36	0.85	35	
	Delhi Gas Turbine	282	142	146	3.52	147	
	Pragati Gas Turbine	330	277	287	6.88	287	
	Rithala GPS	108	19	31	0.64	27	
	Bawana GPS	677	0	0	0.00	0	
	Badarpur TPS (NTPC)	705	610	570	12.73	530	
	Thermal (Total)	2237	1087	1070	24.62	1026	
	<b>Total Delhi</b>	<b>2237</b>	<b>1087</b>	<b>1070</b>	<b>24.62</b>	<b>1026</b>	
HP	Baspa HPS (IPP)	330	330	330	7.92	330	
	Malana HPS (IPP)	86	101	100	2.23	93	
	Other Hydro	589	475	460	11.29	470	
	<b>Total HP</b>	<b>1005</b>	<b>906</b>	<b>890</b>	<b>21</b>	<b>893</b>	
J & K	Baglihar HPS (IPP)	450	440	436	10.48	437	
	Other Hydro	323	178	197	4.55	189	
	Gas/Diesel/Others	183	0	0	0.00	0	
	<b>Total J &amp; K</b>	<b>956</b>	<b>618</b>	<b>633</b>	<b>15.03</b>	<b>626</b>	
<b>Total State Control Area Generation</b>		<b>32017</b>	<b>16113</b>	<b>16981</b>	<b>385.11</b>	<b>15610</b>	
<b>J. Net Inter Regional Exchange (Import (+ve)/Export (-ve))</b>			<b>2922</b>	<b>3052</b>	<b>78.67</b>	<b>3278</b>	
<b>Total Regional Availability(Gross)</b>		<b>54353</b>	<b>37595</b>	<b>37506</b>	<b>862.74</b>	<b>35511</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	9137	7530	189.52	7897
State Control Area Hydro	5368	3092	3200	84.84	3099
<b>Total Regional Hydro</b>	<b>15731</b>	<b>12229</b>	<b>10730</b>	<b>274.36</b>	<b>10996</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	100	-100	100	100	1.02	1.44	-0.42
Gwalior-Agra (D/C)	894	898	1211	0	21.15	0.00	21.15
Zerda-Kankroli	0	-40	174	180	0.00	0.43	-0.43
Zerda-Bhinmal	246	-60	444	292	0.59	0.00	0.59
Malanpur-Auraiya	-47	-12	0	84	0.00	0.57	-0.57
Badod-Kota/Morak	0	0	0	0	0.00	0.00	0.00
Mundra-Mohindergarh(HVDC)	310	267	314	0	6.70	0.00	6.70
<b>Sub Total WR</b>	<b>1503</b>	<b>953</b>			<b>29.46</b>	<b>2.44</b>	<b>27.02</b>
Pusauli Bypass	250	250	250	0	5.82	0.00	5.82
MZP- GKP (D/C)	592	502	1190	0	21.24	0.00	21.24
Patna-Balia(D/C)	391	651	724	0	12.48	0.00	12.48
B'Sharif-Balia (D/C)	182	282	455	0	6.79	0.00	6.79
Barh - Balia(D/C)	0	0	300	0	0.27	0.00	0.27
Pusauli-Balia	27	69	105	0	0.39	0.00	0.39
Gayaa-Fatehpur (765 Kv)	-120	200	235	24	2.25	0.00	2.25
Pusauli-Sahupuri	137	170	172	0	3.13	0.00	3.13
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-40	-25	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>1419</b>	<b>2099</b>			<b>52.37</b>	<b>0.72</b>	<b>51.65</b>
<b>Total IR Exch</b>	<b>2922</b>	<b>3052</b>			<b>81.83</b>	<b>3.16</b>	<b>78.67</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
29.75	3.72	33.47	-0.98	14.52	-2.15	-5.41	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
30.34	3.79	34.12	51.65	27.02	78.67	21.31	23.24	44.55

**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	0.20	3.70	17.20	91.10	77.60	20.10	5.20

<----- 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				
50.39	17.06	49.10	22.05	49.86	0.58	0.19	50.36	49.43

**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	410	7:59	397	13:56	0.0	0.0	0.0	0.0
Gorakhpur	400	433	10:07	403	14:46	0.0	0.0	51.0	14.1
Bareilly	400	421	18:04	386	13:50	0.0	1.0	0.1	0.0
Kanpur	400	418	18:02	389	13:46	0.0	0.6	0.0	0.0
Dadri	400	416	7:56	394	13:56	0.0	0.0	0.0	0.0
Ballabgarh	400	421	7:56	396	13:46	0.0	0.0	1.2	0.0
Bawana	400	420	7:59	398	13:46	0.0	0.0	0.0	0.0
Bassi	400	431	17:03	402	13:48	0.0	0.0	25.2	0.0
Hissar	400	419	18:02	393	13:46	0.0	0.0	0.0	0.0
Moga	400	418	18:01	398	13:44	0.0	0.0	0.0	0.0
Abdullapur	400	420	18:01	401	13:46	0.0	0.0	0.0	0.0
Nalagarh	400	415	18:01	400	13:42	0.0	0.0	0.0	0.0
Kishenpur	400	415	18:02	404	11:43	0.0	0.0	0.0	0.0
Wagoora	400	407	3:15	394	11:45	0.0	0.0	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 (m <sup>3</sup> /s)	Usage (m <sup>3</sup> /s)
Bhakra	513.59	445.62	472.73	313.90	490.81	758.57	931.76	749.09
Pong	426.72	384.05	393.97	111.75	331.65	407.56	442.48	406.23
Tehri	829.79	740.04	759.95	120.54	818.65	982.26	330.22	184.00
Koteshwar	612.50	598.50	600.65	0.80	NA	NA	187.00	165.00
Chamera-I	760.00	748.75	754.24	12.81	NA	NA	287.55	346.48
Rihand	268.22	252.98	254.14	43.20	256.82	150.30	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	500.51	NA	509.44	NA	315.48	233.84

\* NA: Not Available

**IX. System Constraints:**

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

**XI. Weather Conditions For 15.07.2012 :**

1. Partial rain in HP, J & K , Uttranchal , & East UP. Cloudy weather in NR.

**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 : 15.07.2012

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER