

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 16.07.2012

Date of Reporting : 17.07.2012

### 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
36078	5025	41102	49.66	36478	1700	38178	49.75	856.4	89.96

\* 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	52.48	16.33		68.81	118.94	118.01	-0.94	186.81	17.84
Haryana	62.80	1.08		63.88	66.31	67.03	0.73	130.91	5.83
Rajasthan	63.76	0.00	6.65	70.41	42.23	57.24	15.01	127.65	8.17
Delhi	26.89			26.89	79.21	71.25	-7.96	98.14	0.39
UP	78.54	12.95	2.40	93.89	95.64	131.97	36.33	225.86	50.53
Uttarakhand		18.21		18.21	8.34	11.51	3.18	29.73	3.12
HP		20.11		20.11	1.67	2.12	0.46	22.23	1.13
J & K		15.23	0.00	15.23	13.02	13.85	0.83	29.09	2.95
Chandigarh				0.00	6.69	5.96	-0.73	5.96	0.00
<b>Total</b>	<b>284.47</b>	<b>83.91</b>	<b>9.05</b>	<b>377.42</b>	<b>432.04</b>	<b>478.94</b>	<b>46.90</b>	<b>856.36</b>	<b>89.96</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 * (+ve), (-ve)	
	Demand Met	Shortage	UI	STOA/PX transaction	Demand Met	Shortage	UI	STOA/PX transaction	STOA/PX transaction	
Punjab	8233	1165	102	2232	7508	250	-450	2158	51.97	
Haryana	5540	593	163	653	5433	0	-309	653	15.68	
Rajasthan	5674	549	1090	-705	5533	0	633	-698	-16.81	
Delhi	4143	0	-445	546	3688	0	-552	556	12.88	
UP	8797	2395	994	66	10966	1350	2736	166	1.75	
Uttarakhand	1292	150	272	-116	1247	0	177	-116	-2.78	
HP	853	23	-28	-1230	863	0	-16	-1375	-31.15	
J&K	1279	150	41	-449	1027	100	-96	-524	-11.65	
Chandigarh	267	0	-22	40	214	0	-19	0	1.07	
<b>Total</b>	<b>36078</b>	<b>5025</b>	<b>2167</b>	<b>1037</b>	<b>36478</b>	<b>1700</b>	<b>2103</b>	<b>821</b>	<b>20.96</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	2069	2083	46.73	1947	46.08	0.65
Rihand I STPS	1000	870	1001	997	21.07	878	20.88	0.19
Rihand II STPS	1000	970	1040	1041	23.40	975	23.28	0.12
Rihand III STPS	500		0	0	0.00	0		0.00
Dadri I STPS	840	781	840	630	17.26	719	17.28	-0.02
Dadri II STPS	980	757	950	903	18.31	763	18.15	0.16
Unchahar I TPS	420	315	348	344	7.63	318	7.56	0.07
Unchahar II TPS	420	315	350	349	7.62	318	7.56	0.06
Unchahar III TPS	210	160	176	178	3.87	161	3.84	0.03
ISTPP (Jhajjar)	1000	940	1005	764	18.94	789	18.46	0.48
Dadri GPS	830	593	564	572	11.90	496	11.99	-0.10
Anta GPS	419	388	328	258	7.28	303	7.01	0.28
Auraiya GPS	663	412	303	302	6.97	290	7.24	-0.27
<b>Sub Total (A)</b>	<b>10282</b>	<b>8421</b>	<b>8974</b>	<b>8421</b>	<b>190.99</b>	<b>7958</b>	<b>189.33</b>	<b>1.66</b>
<b>B. NPC</b>								
NAPS	440	261	298	301	6.15	256	6.26	-0.11
RAPS- B	440	326	218	441	7.68	320	7.82	-0.13
RAPS- C	440	200	233	231	4.90	204	4.80	0.10
<b>Sub Total (B)</b>	<b>1320</b>	<b>787</b>	<b>749</b>	<b>973</b>	<b>18.74</b>	<b>781</b>	<b>18.88</b>	<b>-0.14</b>
<b>C. NHPC</b>								
Chamera I HPS	540	534	540	540	12.89	537	12.81	0.08
Chamera II HPS	300	300	304	302	7.22	301	7.20	0.01
Chamera III HPS	231	229	235	233	5.53	230	5.49	0.04
Bairasuil HPS	180	182	120	120	2.01	84	1.78	0.24
Salal-HPS	690	663	662	662	15.84	660	15.91	-0.07
Tanakpur-HPS	94	92	94	93	2.12	88	2.13	-0.01
Uri-HPS	480	471	480	480	11.50	479	11.57	-0.07
Dhauliganga-HPS	280	277	211	279	5.96	248	5.88	0.08
Dulhasi-HPS	390	387	406	409	8.95	373	7.50	1.45
Sewa-II HPS	120	80	41	0	0.49	20	0.47	0.02
<b>Sub Total (C)</b>	<b>3305</b>	<b>3214</b>	<b>3093</b>	<b>3118</b>	<b>72.50</b>	<b>3021</b>	<b>70.74</b>	<b>1.76</b>
<b>D. NJPC</b>								
Nathpa Jhakri	1500	1605	1614	1610	38.67	1611	38.52	0.15
<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>1614</b>	<b>1610</b>	<b>38.67</b>	<b>1611</b>	<b>38.52</b>	<b>0.15</b>
<b>E. THDC</b>								
Tehri HPS	1000	453	662	321	6.15	256	6.00	0.15
Koteshwar HPS	400	230	90	161	2.43	101	2.40	0.03
<b>Sub Total (E)</b>	<b>1400</b>	<b>683</b>	<b>752</b>	<b>482</b>	<b>8.58</b>	<b>357</b>	<b>8.40</b>	<b>0.18</b>
<b>F. BBMB</b>								
Bhakra HPS	1480	819	1159	687	20.02	834	19.66	0.36
Dehar HPS	990	624	660	660	15.21	634	14.98	0.23
Pong HPS	396	205	306	108	5.08	212	5.01	0.07
<b>Sub Total (F)</b>	<b>2866</b>	<b>1648</b>	<b>2125</b>	<b>1455</b>	<b>40.31</b>	<b>1680</b>	<b>39.64</b>	<b>0.67</b>
<b>G. IPP(s)/JV(s)</b>								
ADHPL HPS(IPP)	192	0	210	171	3.90	163	4.28	-0.38
KWHEP HPS(IPP)	1000	0	1080	1104	25.43	1060	26.60	-1.17
Malana Stg-II HPS	100	93	92	102	2.24	93	2.33	-0.09
Shree Cement TPS	300	0	269	182	5.37	224	5.08	0.29
Budhil HPS(IPP)	70		35	0	0.34	14		0.34
<b>Sub Total (G)</b>	<b>1662</b>	<b>93</b>	<b>1686</b>	<b>1559</b>	<b>37.28</b>	<b>1553</b>	<b>38.30</b>	<b>-1.02</b>
<b>H. Total Regional Entities (A-G)</b>	<b>22336</b>	<b>16451</b>	<b>18993</b>	<b>17618</b>	<b>407.07</b>	<b>16961</b>	<b>403.81</b>	<b>3.26</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	1253	1256	27.91	1163
	Guru Nanak Dev TPS(Bhatinda)	440	207	165	3.90	162
	Guru Hargobind Singh TPS(L.mbt)	920	925	949	20.67	861
	Thermal (Total)	2620	2385	2370	52.48	2187
	Total Hydro	1148	783	600	16.33	680
	<b>Total Punjab</b>	<b>3768</b>	<b>3168</b>	<b>2970</b>	<b>68.81</b>	<b>2867</b>
Haryana	Panipat TPS	1367	1100	1094	26.70	1113
	DCRTPP (Yamuna nagar)	600	0	0	0.00	0
	Faridabad GPS (NTPC)	432	374	386	8.01	334
	RGTPP (kheadar) (IPP)	1200	446	551	13.29	554
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	572	572	14.80	617
	Thermal (Total)	4944	2492	2603	62.80	2617
	Total Hydro	62	29	31	1.08	45
	<b>Total Haryana</b>	<b>5006</b>	<b>2521</b>	<b>2634</b>	<b>63.88</b>	<b>2662</b>
Rajasthan	kota TPS	1240	878	877	20.38	849
	suratgarh TPS	1500	883	876	21.04	877
	Chabra TPS	500	218	135	4.49	187
	Dholpur GPS	330	167	94	2.64	110
	Ramgarh GPS	111	55	57	1.39	58
	RAPS A (NPC)	300	192	177	4.31	180
	Barsingsar (NLC)	250	104	105	2.57	107
	Giral LTPS	250	59	60	1.17	49
	Rajwest LTPS (IPP)	540	243	243	5.77	241
	VSLP LTPS (IPP)	135	0	0	0.00	0
	Thermal (Total)	5156	2799	2624	63.76	2657
	Total Hydro	550	0	0	0.00	0
	Wind power	1843	66	482	5.88	245
	Biomass	91	24	24	0.59	24
	Solar	128	0	0	0.19	8
	Renewable/Others (Total)	2062	90	506	6.65	277
	<b>Total Rajasthan</b>	<b>7767</b>	<b>2889</b>	<b>3130</b>	<b>70.41</b>	<b>2934</b>
	UP	Anpara TPS	1630	743	833	17.80
Obra TPS		1382	430	456	10.40	433
Paricha TPS		890	550	554	13.10	546
Panki TPS		210	135	61	2.50	104
Harduaganj TPS		665	173	34	2.90	121
Tanda TPS (NTPC)		440	296	296	7.23	301
Roza TPS (IPP)		1200	545	549	13.10	546
Anpara-C (IPP)		1200	275	278	6.60	275
Bajaj Energy Pvt.Ltd(IPP) TPS		450	185	237	4.91	205
Thermal (Total)		8067	3332	3298	78.54	3272
Vishnuparyag HPS (IPP)		400	436	436	10.46	436
Other Hydro		527	50	0	2.49	104
Cogeneration		981	100	100	2.40	100
<b>Total UP</b>		<b>9975</b>	<b>3918</b>	<b>3834</b>	<b>93.89</b>	<b>3476</b>
Uttarakhand	Total Hydro	1303	711	693	18.21	759
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>711</b>	<b>693</b>	<b>18.21</b>	<b>759</b>
Delhi	Rajghat TPS	135	37	39	0.86	36
	Delhi Gas Turbine	282	210	145	4.41	184
	Pragati Gas Turbine	330	276	285	6.89	287
	Rithala GPS	108	21	19	0.51	21
	Bawana GPS	677	30	0	0.32	13
	Badarpur TPS (NTPC)	705	600	625	13.90	579
	Thermal (Total)	2237	1174	1113	26.89	1120
	<b>Total Delhi</b>	<b>2237</b>	<b>1174</b>	<b>1113</b>	<b>26.89</b>	<b>1120</b>
HP	Baspa HPS (IPP)	330	330	330	7.92	330
	Malana HPS (IPP)	86	76	93	1.92	80
	Other Hydro	589	393	447	10.27	428
	<b>Total HP</b>	<b>1005</b>	<b>799</b>	<b>870</b>	<b>20</b>	<b>838</b>
J & K	Baglihar HPS (IPP)	450	438	438	10.50	438
	Other Hydro	323	185	210	4.73	197
	Gas/Diesel/Others	183	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>956</b>	<b>623</b>	<b>648</b>	<b>15.23</b>	<b>635</b>
<b>Total State Control Area Generation</b>		<b>32017</b>	<b>15803</b>	<b>15892</b>	<b>377.42</b>	<b>15290</b>
<b>J. Net Inter Regional Exchange (Import (+ve)/Export (-ve))</b>			<b>3294</b>	<b>3710</b>	<b>85.44</b>	<b>3560</b>
<b>Total Regional Availability(Gross)</b>		<b>54353</b>	<b>38090</b>	<b>37220</b>	<b>869.93</b>	<b>35811</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	8966	8042	191.63	7985
State Control Area Hydro	5368	2995	2842	83.91	3060
<b>Total Regional Hydro</b>	<b>15731</b>	<b>11961</b>	<b>10884</b>	<b>275.54</b>	<b>11045</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	0	2.45	0.00	2.45
Gwalior-Agra (D/C)	658	791	1065	0	20.18	0.00	20.18
Zerda-Kankroli	0	49	181	46	0.83	0.00	0.83
Zerda-Bhinmal	314	67	460	62	3.54	0.00	3.54
Malanpur-Auraiya	-57	-38	0	96	0.00	0.81	-0.81
Badod-Kota/Morak	0	0	0	0	0.00	0.00	0.00
Mundra-Mohindergarh(HVDC)	505	455	508	0	11.27	0.00	11.27
<b>Sub Total WR</b>	<b>1520</b>	<b>1424</b>			<b>38.26</b>	<b>0.81</b>	<b>37.46</b>
Pusauli Bypass	250	250	250	0	5.97	0.00	5.97
MZP- GKP (D/C)	660	904	968	0	19.36	0.00	19.36
Patna-Balia(D/C)	249	458	477	0	8.30	0.00	8.30
B'Sharif-Balia (D/C)	251	475	481	0	8.06	0.00	8.06
Barh - Balia(D/C)	300	0	329	0	3.65	0.00	3.65
Pusauli-Balia	-35	-77	0	121	0.00	1.53	-1.53
Gayaa-Fatehpur (765 Kv)	0	141	239	5	1.83	0.00	1.83
Pusauli-Sahupuri	144	160	165	0	3.33	0.00	3.33
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-45	-25	0	48	0.00	0.98	-0.98
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>1774</b>	<b>2286</b>			<b>50.49</b>	<b>2.51</b>	<b>47.98</b>
<b>Total IR Exch</b>	<b>3294</b>	<b>3710</b>			<b>88.75</b>	<b>3.32</b>	<b>85.44</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
30.38	3.72	34.09	-2.68	15.37	-1.04	-4.18	0.00	0.00
<b>Total IR Schedule (MU)</b>								
Through ER	Through WR	Total	Through ER	Through WR	Total	Through ER	Through WR	Total
30.38	6.10	36.48	47.98	37.46	85.44	17.60	31.35	48.96

**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	3.60	8.00	29.10	68.70	70.90	31.30	0.50	0.00

<----- 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				
50.11	4.05	48.79	22.03	49.57	2.38	0.23	50.02	48.96

**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	4:33	398	14:16	0.0	0.0	0.0	0.0
Gorakhpur	400	431	7:28	403	1:18	0.0	0.0	41.1	3.7
Bareilly	400	417	19:01	391	15:08	0.0	0.0	0.0	0.0
Kanpur	400	415	4:04	394	15:09	0.0	0.0	0.0	0.0
Dadri	400	412	4:03	394	14:53	0.0	0.0	0.0	0.0
Ballabgarh	400	420	4:04	395	16:15	0.0	0.0	0.0	0.0
Bawana	400	417	4:03	396	16:18	0.0	0.0	0.0	0.0
Bassi	400	426	4:04	402	9:09	0.0	0.0	10.4	0.0
Hissar	400	416	4:03	393	16:17	0.0	0.0	0.0	0.0
Moga	400	418	4:04	396	16:15	0.0	0.0	0.0	0.0
Abdullapur	400	420	4:04	288	23:30	0.1	0.1	0.0	0.0
Nalagarh	400	417	4:04	390	16:15	0.0	0.0	0.0	0.0
Kishenpur	400	415	4:04	399	16:17	0.0	0.0	0.0	0.0
Wagoora	400	410	4:03	391	16:12	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 16.07.2012 :**

1: Scattered Rain 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 : 16.07.2012

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER