

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पारदर्शित की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 21.07.2014  
Date of Reporting : 22.07.2014

### 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
43874	3600	47474	49.97	40968	2650	43618	50.09	1001.7	49.10

\* 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	65.78	25.59		91.37	124.41	124.58	0.18	215.96	0.00
Haryana	63.44	0.50		63.93	107.45	106.51	-0.94	170.44	0.00
Rajasthan	105.43	0.00	23.53	128.96	37.91	35.59	-2.31	164.55	0.00
Delhi	27.67			27.67	79.38	79.57	0.19	107.25	0.19
UP	124.30	3.90	1.20	129.40	118.82	120.91	2.08	250.31	46.99
Uttarakhand		20.78		20.78	12.57	12.60	0.03	33.38	0.23
HP		23.35		23.35	0.63	1.43	0.79	24.77	0.00
J & K		10.41	0.00	10.41	18.50	18.94	0.44	29.34	1.70
Chandigarh				0.00	5.37	5.67	0.30	5.67	0.00
<b>Total</b>	<b>386.62</b>	<b>84.52</b>	<b>24.73</b>	<b>495.87</b>	<b>505.03</b>	<b>505.79</b>	<b>0.75</b>	<b>1001.65</b>	<b>49.10</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				# Max(hourly) Demand Met of Day (MW)
	Demand Met	Shortage	UI	STOA/PX transaction	Demand Met	Shortage	UI	STOA/PX transaction	
Punjab	9085	0	-12	1500	9255	0	5	2076	9272
Haryana	7985	0	-59	1449	6765	0	-157	1493	8160
Rajasthan	6819	0	-215	-822	6251	0	-241	-300	7582
Delhi	4760	0	215	524	4035	0	-141	255	5308
UP	10633	3425	191	350	10984	2650	16	381	10984
Uttarakhand	1611	75	36	113	1227	0	32	59	1611
HP	1017	0	35	-1217	840	0	75	-1436	1182
J&K	1703	100	61	-205	1421	0	7	-334	1703
Chandigarh	261	0	25	0	190	0	4	0	292
<b>Total</b>	<b>43874</b>	<b>3600</b>	<b>278</b>	<b>1691</b>	<b>40968</b>	<b>2650</b>	<b>-400</b>	<b>2193</b>	<b>44694</b>

\* STOA figures are at sellers boundary & PX figures are at regional boundary. # figures may not be at simultaneous hour.

Diversity is 1.03

### III. Regional Entities :

A. NTPC	Station/ Constituent	Inst. Capacity (Effective) MW	Declared Capacity(MW)	Peak MW	Off Peak MW	Energy	Average	Schedule	UI
				(Gross)	(Gross)	(Net MU)	Sentout(MW)	Net MU	Net MU
	Singrauli STPS	2000	1668	1796	1810	39.28	1637	38.38	0.90
	Rihand I STPS	1000	803	899	840	20.01	834	18.13	1.88
	Rihand II STPS	1000	840	870	896	20.98	874	19.14	1.84
	Rihand III STPS	1000	807	859	844	19.14	798	17.58	1.56
	Dadri I STPS	840	798	701	641	17.26	719	16.43	0.83
	Dadri II STPS	980	475	446	403	10.72	447	10.72	0.00
	Unchahar I TPS	420	397	410	384	9.41	392	8.76	0.65
	Unchahar II TPS	420	400	418	385	9.12	380	8.28	0.84
	Unchahar III TPS	210	198	211	155	4.28	178	3.91	0.37
	ISTPP (Jhajjar)	1500	950	956	693	18.66	778	19.03	-0.37
	Dadri GPS	830	517	367	185	7.30	304	7.36	-0.07
	Anta GPS	419	380	218	252	5.66	236	5.71	-0.05
	Auraiya GPS	663	632	149	154	3.64	152	3.52	0.12
	Dadri Solar	5	1	0	0	0.02	1	0.03	-0.01
	Unchahar Solar	10	3	0	0	0.01	0	0.07	-0.06
	<b>Sub Total (A)</b>	<b>11297</b>	<b>8868</b>	<b>8300</b>	<b>7642</b>	<b>185</b>	<b>7729</b>	<b>177</b>	<b>8</b>
B. NPC	NAPS	440	275	308	310	6.50	271	6.60	-0.10
	RAPS- B	440	394	394	394	9.46	394	9.46	0.00
	RAPS- C	440	375	417	414	8.90	371	9.00	-0.10
	<b>Sub Total (B)</b>	<b>1320</b>	<b>1044</b>	<b>1119</b>	<b>1118</b>	<b>24.85</b>	<b>1035</b>	<b>25.06</b>	<b>-0.21</b>
C. NHPC	Chamera I HPS	540	534	551	538	13.08	545	12.82	0.27
	Chamera II HPS	300	301	309	305	7.29	304	7.22	0.08
	Chamera III HPS	231	229	235	228	5.55	231	5.50	0.05
	Bairasui HPS	180	178	180	178	3.13	131	3.00	0.13
	Salal-HPS	690	663	668	672	16.07	670	15.91	0.16
	Tanakpur-HPS	94	26	82	0	0.59	25	0.61	-0.02
	Uri-HPS	480	475	478	473	11.52	480	11.40	0.12
	Uri-II HPS	240	237	249	182	5.75	240	5.69	0.06
	Dhauliganga-HPS	280	0	0	0	0.00	0	0.00	0.00
	Dulhasti-HPS	390	386	397	396	9.32	388	9.26	0.06
	Sewa-II HPS	120	119	98	0	1.00	42	0.90	0.10
	Parbati 3	390	130	132	133	3.16	131	3.12	0.04
	<b>Sub Total ©</b>	<b>3935</b>	<b>3277</b>	<b>3380</b>	<b>3105</b>	<b>76</b>	<b>3186</b>	<b>75</b>	<b>1</b>
D.SJVNL	NJPC	1500	1605	1614	1617	38.53	1606	38.50	0.03
	Rampur HEP	275	258	213	294	6.53	272	6.30	0.23
	<b>Sub Total (D)</b>	<b>1775</b>	<b>1863</b>	<b>1827</b>	<b>1911</b>	<b>45.07</b>	<b>1878</b>	<b>44.80</b>	<b>0.26</b>
E. THDC	Tehri HPS	1000	784	780	520	12.15	506	12.00	0.15
	Koteshwar HPS	400	400	398	100	5.24	218	5.20	0.04
	<b>Sub Total (E)</b>	<b>1400</b>	<b>1184</b>	<b>1178</b>	<b>620</b>	<b>17.39</b>	<b>725</b>	<b>17.20</b>	<b>0.19</b>
F. BBMB	Bhakra HPS	1514	938	1338	897	22.61	942	22.51	0.11
	Dehar HPS	990	257	660	0	7.25	302	6.16	1.09
	Pong HPS	396	193	372	122	4.80	200	4.64	0.17
	<b>Sub Total (F)</b>	<b>2900</b>	<b>1388</b>	<b>2370</b>	<b>1019</b>	<b>34.67</b>	<b>1444</b>	<b>33.30</b>	<b>1.36</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	229	229	5.37	224	5.29	0.08
	KWHEP HPS(IPP)	1000	0	1200	1200	28.67	1195	28.51	0.16
	Malana Stg-II HPS	100	0	111	112	2.56	107	2.49	0.07
	Shree Cement TPS	300	0	210	189	4.70	196	4.71	-0.01
	Budhil HPS(IPP)	70	0	72	71	1.69	70	1.67	0.01
	<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1821</b>	<b>1802</b>	<b>42.99</b>	<b>1791</b>	<b>42.67</b>	<b>0.31</b>
<b>H. Total Regional Entities (A-G)</b>		<b>24289</b>	<b>17624</b>	<b>19995</b>	<b>17216</b>	<b>426.91</b>	<b>17788</b>	<b>415.51</b>	<b>11.40</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	1145	1245	25.59	1066
	Guru Nanak Dev TPS(Bhatinda)	440	427	412	8.97	374
	Guru Hargobind Singh TPS(L.mbt)	920	722	715	15.45	644
	Goindwal(GVK)		0	0	0.00	0
	Rajpura	700	701	681	15.76	657
	Talwandi Saboo	660	0	0	0.00	0
	Thermal (Total)	<b>3980</b>	<b>2995</b>	<b>3053</b>	<b>65.78</b>	<b>2741</b>
	Total Hydro	1148	987	988	25.59	1066
	<b>Total Punjab</b>	<b>5128</b>	<b>3982</b>	<b>4041</b>	<b>91.37</b>	<b>3807</b>
	Haryana	Panipat TPS	1367	618	608	14.45
DCRTPP (Yamuna nagar)		600	539	431	11.03	460
Faridabad GPS (NTPC)		432	190	185	4.56	190
RGTPP (khedar) (IPP)		1200	1165	780	22.45	935
Magnum Diesel (IPP)		25	0	0	0.00	0
Jhajjar(CLP)		1320	538	372	10.95	456
Thermal (Total)		4944	3050	2376	63.44	2643
Total Hydro		62	19	21	0.50	21
<b>Total Haryana</b>		<b>5006</b>	<b>3069</b>	<b>2397</b>	<b>63.93</b>	<b>2664</b>
Rajasthan		kota TPS	1240	900	891	20.85
	suratgarh TPS	1500	1035	1020	24.60	1025
	Chabra TPS	750	354	195	8.45	352
	Dholpur GPS	330	0	0	0.00	0
	Ramgarh GPS	271	116	113	3.24	135
	RAPS A (NPC)	300	0	0	0.00	0
	Barsingsar (NLC)	250	98	98	2.17	90
	Giral LTPS	250	0	0	0.00	0
	Rajwest LTPS (IPP)	1080	631	431	13.79	575
	VSLP LTPS (IPP)	135	0	0	0.00	0
	Kalisindh Thermal	600	405	405	10.01	417
	Kawai(Adani)	1320	944	853	22.32	930
	Thermal (Total)	8026	4483	4006	105	4393
	Total Hydro	550	0	0	0.00	0
	Wind power	2798	867	1130	22.15	923
	Biomass	99	39	39	0.95	39
	Solar	730	0	0	0.43	18
	Renewable/Others (Total)	3627	906	1169	23.53	981
	<b>Total Rajasthan</b>	<b>12203</b>	<b>5389</b>	<b>5175</b>	<b>128.96</b>	<b>5373</b>
	UP	Anpara TPS	1630	890	913	21.50
Obra TPS		1288	548	525	12.50	521
Paricha TPS		1140	721	780	16.60	692
Panki TPS		210	122	135	2.80	117
Harduaganj TPS		665	401	404	9.70	404
Tanda TPS (NTPC)		440	378	366	9.00	375
Roza TPS (IPP)		1200	824	833	19.60	817
Anpara-C (IPP)		1200	909	1080	23.30	971
Bajaj Energy Pvt.Ltd(IPP) TPS		450	403	401	9.30	388
Thermal (Total)		8223	5196	5437	124.30	5179
Vishnuparyag HPS (IPP)		400	0	0	0.00	0
Other Hydro		527	184	187	3.90	163
Cogeneration		981	50	50	1.20	50
<b>Total UP</b>		<b>10131</b>	<b>5430</b>	<b>5674</b>	<b>129.40</b>	<b>5392</b>
Uttarakhand		Total Hydro	1303	872	869	20.78
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>872</b>	<b>869</b>	<b>20.78</b>	<b>866</b>
Delhi	Rajghat TPS	135	100	43	1.60	67
	Delhi Gas Turbine	282	141	144	3.40	142
	Pragati Gas Turbine	330	224	293	6.68	278
	Rithala GPS	95	0	0	0.00	0
	Bawana GPS	1370	294	29	4.19	174
	Badarpur TPS (NTPC)	705	493	481	11.81	492
	Thermal (Total)	2917	1252	990	27.67	1153
	<b>Total Delhi</b>	<b>2917</b>	<b>1252</b>	<b>990</b>	<b>27.67</b>	<b>1153</b>
HP	Baspa HPS (IPP)	300	330	220	6.07	253
	Malana HPS (IPP)	86	102	104	2.47	103
	Other Hydro	728	637	595	14.81	617
	<b>Total HP</b>	<b>1114</b>	<b>1069</b>	<b>919</b>	<b>23.35</b>	<b>973</b>
J & K	Baqilhar HPS (IPP)	450	438	438	10.41	434
	Other Hydro/IPP	436	0	0	0.00	0
	Gas/Diesel/Others	209	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>1094</b>	<b>438</b>	<b>438</b>	<b>10.41</b>	<b>434</b>
<b>Total State Control Area Generation</b>		<b>38896</b>	<b>21501</b>	<b>20503</b>	<b>495.87</b>	<b>20661</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>3388</b>	<b>3341</b>	<b>101.61</b>	<b>4234</b>
<b>Total Regional Availability(Gross)</b>		<b>63186</b>	<b>44884</b>	<b>41060</b>	<b>1024.38</b>	<b>42683</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	11302	10294	8196	210.19	8758
State Control Area Hydro	5589	3569	3422	84.52	3522
<b>Total Regional Hydro</b>	<b>16891</b>	<b>13863</b>	<b>11618</b>	<b>294.71</b>	<b>12279</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	-350	350	50	3.70	0.18	3.52
Gwalior-Agra (D/C)	1481	1705	2103	0	37.67	0.00	37.67
Zerda-Kankroli	-165	-130	0	236	0.00	9.41	-9.41
Zerda-Bhinmal	-157	-135	0	260	0.00	3.79	-3.79
Malanpur-Auraiya	-82	-49	0	78	0.00	1.21	-1.21
Badod-Kota/Morak	-164	-144	0	174	0.00	3.34	-3.34
Mundra-Mohindergarh(HVDC)	1501	1501	2303	0	44.51	0.00	44.51
Vindhychal - Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total WR</b>	<b>2314</b>	<b>2398</b>			<b>85.88</b>	<b>17.93</b>	<b>67.95</b>
Pusaali Bypass	400	400	400	0	9.76	0.00	9.76
MZP- GKP (D/C)	352	390	668	0	11.17	0.00	11.17
Patna-Balia(D/C)	110	82	303	0	3.61	0.00	3.61
B'Sharif-Balia (D/C)	130	139	263	0	4.32	0.00	4.32
Pusaali-Balia	-85	-81	0	90	0.00	1.72	-1.72
Gaya-Fatehpur (765 Kv)	23	-24	149	51	1.12	0.00	1.12
Pusaali-Sahupuri	45	42	170	0	3.39	0.00	3.39
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-2	-34	0	37	0.00	0.48	-0.48
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	101	29	196	9	2.49	0.00	2.49
<b>Sub Total ER</b>	<b>1074</b>	<b>943</b>			<b>35.86</b>	<b>2.20</b>	<b>33.66</b>
<b>Total IR Exch</b>	<b>3388</b>	<b>3341</b>			<b>121.74</b>	<b>20.13</b>	<b>101.61</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
21.65	3.77	25.42	15.73	3.30	-2.28	7.02	0.00	0.00

Total IR Schedule (MU)			Total IR Actual (MU)			Net IR UI (MU)		
Through ER	Through WR incld Mndra	Total	Through ER	Through WR	Total	Through ER	Through WR	Total
38.87	70.02	108.90	33.66	67.95	101.61	-5.22	-2.08	-7.29

**VI. Frequency Profile <----- % of Time Frequency ----->**

<49.2	<49.7	<49.8	<49.9	<50.0	49.9-50.05	50.05-50.10	50.10-50.20	>50.20	>50.50
0.00	2.00	7.16	27.47	67.44	58.53	9.78	3.28	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)
Freq	Time	Freq	Time					
50.28	13.00	49.56	19.39	49.95	0.13	0.10	50.27	49.73

**VII. Voltage profile 400 kV**

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	407	12:59	401	00:09	0.0	0.0	0.0	0.0
Gorakhpur	400	417	13:01	398	00:03	0.0	0.0	0.0	0.0
Bareilly	400	415	18:01	396	15:00	0.0	0.0	0.0	0.0
Kanpur	400	419	18:02	403	14:58	0.0	0.0	0.0	0.0
Dadri	400	413	06:49	393	14:58	0.0	0.0	0.0	0.0
Ballabgarh	400	421	06:38	400	14:54	0.0	0.0	1.3	0.0
Bawana	400	414	04:03	396	14:57	0.0	0.0	0.0	0.0
Bassi	400	430	04:02	408	15:41	0.0	0.0	37.2	0.0
Hissar	400	410	07:01	393	14:48	0.0	0.0	0.0	0.0
Moga	400	409	04:05	401	12:01	0.0	0.0	0.0	0.0
Abdullapur	400	417	06:37	396	14:43	0.0	0.0	0.0	0.0
Nalagarh	400	414	04:03	398	14:49	0.0	0.0	0.0	0.0
Kishenpur	400	413	06:53	404	15:43	0.0	0.0	0.0	0.0
Wagoora	400	407	23:53	393	19:34	0.0	0.0	0.0	0.0

**VIII. Voltage profile 765 kV**

Station	Voltage Level (kV)	Maximum		Minimum		Voltage (in % of Time)			
		Voltage(KV)	Time	Voltage (KV)	Time	<728 kV	<742 kV	>800 kV	>820 kV
Fatehpur	765	776	18:01	748	22:14	0.0	0.0	0.0	0.0
Balia	765	783	16:06	744	00:05	0.0	0.0	0.0	0.0
Moga	765	774	22:36	168	00:27	85.0	85.0	0.0	0.0
Agra	765	788	18:01	759	15:00	0.0	0.0	0.0	0.0
Bhiwani	765	794	06:50	379	00:07	1.1	1.1	0.0	0.0
Unnao	765	766	18:02	736	00:08	0.0	12.0	0.0	0.0

**IX. 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	487.48	652.97	491.45	778.28	1057.52	746.49
Pong	426.72	384.05	400.80	237.89	404.34	328.16	215.09	376.70
Tehri	829.79	740.04	748.65	42.00	NA	NA	301.26	205.00
Koteshwar	612.50	598.50	610.77	4.95	608.40	3.76	208.00	207.00
Chamera-I	760.00	748.75	757.00	12.82	NA	NA	505.02	347.40
Rihand	268.22	252.98	258.07	205.10	256.79	149.00	NA	NA
RPS	352.80	343.81	348.06	NA	NA	NA	NA	NA
Jawahar Sagar	298.70	295.78	298.80	NA	NA	NA	NA	NA
RSD	527.91	487.91	516.64	144.00	506.65	144.00	224.47	197.51

\* NA: Not Available

**X(A). Short-Term Open Access Details:**

State	Off- Peak Hours (03:00 Hrs)			Peak Hours (20:00 Hrs)			Day Energy (MU)		
	Bilateral (MW)	IEX (MW)	PXIL (MW)	Bilateral (MW)	IEX (MW)	PXIL (MW)	Bilateral (MU)	IEX / PXIL (MU)	Total (MU)
Punjab	1542	534	0	1493	6	0	35.58	9.46	45.03
Delhi	362	-91	-16	401	174	-51	12.33	0.37	12.70
Haryana	1332	161	0	1286	164	0	29.51	3.63	33.14
HP	-927	-509	0	-876	-341	0	-19.65	-10.38	-30.03
J&K	-334	0	0	-334	129	0	-10.09	-1.30	-11.38
CHD	0	0	0	0	0	0	0.33	0.24	0.58
Rajasthan	-757	453	4	-757	-64	0	-16.11	8.30	-7.81
UP	381	0	0	350	0	0	7.64	0.00	7.64
Uttarakhand	-8	67	0	-8	121	0	-0.19	1.51	1.32
<b>Total</b>	<b>1590</b>	<b>614</b>	<b>-12</b>	<b>1554</b>	<b>188</b>	<b>-51</b>	<b>39.34</b>	<b>11.85</b>	<b>51.19</b>

**X(B). Short-Term Open Access Details:**

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	1542	1439	557	6	0	0
Delhi	874	313	327	-367	-16	-51
Haryana	1332	1025	189	-21	0	0
HP	-724	-927	-326	-542	0	0
J&K	-334	-537	129	-300	0	0
CHD	41	0	25	0	0	0
Rajasthan	-462	-757	466	-329	4	0
UP	497	214	0	0	0	0
Uttarakhand	-8	-8	128	20	0	0

**XI. System Constraints:****XII. Grid Disturbance / Any Other Significant Event:****XIII. Weather Conditions For 21.07.2014 :**

1. Scattered Rain in NR.

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

0.00

**XV. Synchronisation of new 220 / 400 / 765 KV lines and energising of bus / /substation :****XVI. Tripping of lines in pooling stations :****XVII. Complete generation loss in a generating station :**