

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 21.06.2014  
Date of Reporting : 22.06.2014

### 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
40860	1739	42599	50.10	45568	1610	47178	50.14	1043.5	37.46

\* 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:

UI [OD:(+ve), UD: (-ve)]

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	62.25	18.79		81.05	124.39	120.40	-3.99	201.44	0.00
Haryana	63.65	0.64		64.29	104.02	101.24	-2.78	165.54	0.00
Rajasthan	122.55	0.00	29.57	152.12	44.28	44.72	0.43	196.84	0.00
Delhi	29.53			29.53	88.37	83.03	-5.35	112.55	0.61
UP	131.22	10.73	1.20	143.15	129.33	127.39	-1.94	270.54	35.15
Uttarakhand		17.30		17.30	20.51	20.35	-0.16	37.65	0.00
HP		24.55		24.55	0.81	0.62	-0.19	25.17	0.00
J & K		11.95	0.00	11.95	15.90	15.35	-0.55	27.30	1.70
Chandigarh				0.00	5.92	6.46	0.54	6.46	0.00
<b>Total</b>	<b>409.20</b>	<b>83.97</b>	<b>30.77</b>	<b>523.94</b>	<b>533.53</b>	<b>519.56</b>	<b>-13.97</b>	<b>1043.50</b>	<b>37.46</b>

\* Shortage furnished by the respective constituent.\$ Others include UP Co-generation and JK Diesel

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

UI/OA/PX [OD/Import: (+ve), UD/Export: (-ve)]

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	7067	0	-450	2182	9454	0	-72	2427	55.21
Haryana	6484	0	-829	1068	7341	0	35	1552	34.74
Rajasthan	7283	0	14	-633	8266	0	70	-470	-11.67
Delhi	4827	249	185	279	4906	0	-184	380	9.90
UP	10894	1390	57	412	11952	1610	-137	815	14.15
Uttarakhand	1726	0	32	325	1561	0	-3	253	6.27
HP	1005	0	-96	-1181	1006	0	93	-1404	-29.04
J&K	1307	100	36	-509	817	0	-225	-743	-14.99
Chandigarh	267	0	20	10	265	0	49	0	0.69
<b>Total</b>	<b>40860</b>	<b>1739</b>	<b>-1031</b>	<b>1953</b>	<b>45568</b>	<b>1610</b>	<b>-374</b>	<b>2810</b>	<b>65.25</b>

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

### III. Regional Entities :

UI [OG:(+ve), UG: (-ve)]

Station/ Constituent	Inst. Capacity	Declared	Peak MW	Off Peak MW	Energy	Average	Schedule	UI
	(Effective) MW	Capacity(MW)	(Gross)	(Gross)	(Net MU)	Sentout(MW)	Net MU	Net MU
<b>A. NTPC</b>								
Singrauli STPS	2000	1400	1278	1447	31.29	1304	31.62	-0.33
Rihand I STPS	1000	890	741	877	18.76	782	19.09	-0.33
Rihand II STPS	1000	955	776	986	19.89	829	20.46	-0.57
Rihand III STPS	1000	888	711	869	18.85	785	19.09	-0.23
Dadri I STPS	840	810	716	787	14.89	620	15.82	-0.94
Dadri II STPS	980	966	851	872	19.28	803	21.11	-1.83
Unchahar I TPS	420	404	339	401	8.14	339	8.52	-0.39
Unchahar II TPS	420	406	311	372	7.63	318	7.87	-0.24
Unchahar III TPS	210	202	311	372	3.77	157	3.87	-0.11
ISTPP (Jhajjar)	1500	1410	749	924	18.81	784	19.26	-0.45
Dadri GPS	830	791	527	539	11.49	479	11.71	-0.21
Anta GPS	419	233	29	313	3.86	161	4.16	-0.30
Auraiya GPS	663	476	378	301	7.04	293	7.04	0.00
Dadri Solar	5	1	0	0	0.02	1	0.03	-0.01
Unchahar Solar	10	3	0	0	0.00	0	0.07	-0.07
<b>Sub Total (A)</b>	<b>11297</b>	<b>9835</b>	<b>7717</b>	<b>9060</b>	<b>184</b>	<b>7655</b>	<b>190</b>	<b>-6</b>
<b>B. NPC</b>								
NAPS	440	269	305	307	6.97	290	6.46	0.51
RAPS- B	440	390	433	434	9.34	389	9.36	-0.02
RAPS- C	440	200	220	220	4.71	196	4.80	-0.09
<b>Sub Total (B)</b>	<b>1320</b>	<b>859</b>	<b>958</b>	<b>961</b>	<b>21.02</b>	<b>876</b>	<b>20.62</b>	<b>0.40</b>
<b>C. NHPC</b>								
Chamera I HPS	540	534	540	540	12.82	534	12.82	0.00
Chamera II HPS	300	301	309	307	7.33	305	7.22	0.11
Chamera III HPS	231	229	229	229	5.48	228	5.50	-0.01
Bairasui HPS	180	179	180	180	3.70	154	3.70	0.00
Salal-HPS	690	645	663	665	15.72	655	15.49	0.23
Tanakpur-HPS	94	73	73	45	1.74	73	1.74	0.00
Uri-HPS	480	475	476	478	11.50	479	11.40	0.10
Uri-II HPS	240	236	241	249	5.72	238	5.67	0.04
Dhauliganga-HPS	280	204	144	208	4.60	192	4.87	-0.27
Dulhasti-HPS	390	387	399	398	9.35	389	9.28	0.07
Sewa-II HPS	120	119	129	121	2.13	89	2.10	0.03
Parbati 3	390	250	254	250	6.00	250	6.00	0.00
<b>Sub Total ©</b>	<b>3935</b>	<b>3631</b>	<b>3637</b>	<b>3670</b>	<b>86</b>	<b>3587</b>	<b>86</b>	<b>0</b>
<b>D. SJVNL</b>								
NJPC	1500	1605	1623	1571	37.83	1576	37.83	0.00
Rampur HEP	206	266	285	268	6.49	270	6.39	0.09
<b>Sub Total (D)</b>	<b>1706</b>	<b>1871</b>	<b>1908</b>	<b>1839</b>	<b>44.32</b>	<b>1847</b>	<b>44.22</b>	<b>0.09</b>
<b>E. THDC</b>								
Tehri HPS	1000	396	395	385	7.03	293	7.00	0.03
Koteshwar HPS	400	175	395	101	3.98	166	4.00	-0.02
<b>Sub Total (E)</b>	<b>1400</b>	<b>571</b>	<b>790</b>	<b>486</b>	<b>11.01</b>	<b>459</b>	<b>11.00</b>	<b>0.01</b>
<b>F. BBMB</b>								
Bhakra HPS	1514	865	1217	798	21.20	883	20.77	0.43
Dehar HPS	990	560	660	615	15.30	638	13.44	1.86
Pong HPS	396	224	364	121	5.29	220	5.37	-0.08
<b>Sub Total (F)</b>	<b>2900</b>	<b>1649</b>	<b>2241</b>	<b>1534</b>	<b>41.79</b>	<b>1741</b>	<b>39.58</b>	<b>2.21</b>
<b>G. IPP(s)/JV(s)</b>								
ADHPL HPS(IPP)	192	0	229	228	5.47	228	5.37	0.10
KWHEP HPS(IPP)	1000	0	1198	1128	24.34	1014	26.46	-2.12
Malana Stg-II HPS	100	0	114	115	2.74	114	2.47	0.27
Shree Cement TPS	300	0	281	283	6.87	286	6.90	-0.03
Budhil HPS(IPP)	70	0	14	14	1.69	70	1.63	0.05
<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1836</b>	<b>1768</b>	<b>41.10</b>	<b>1712</b>	<b>42.83</b>	<b>-1.73</b>
<b>H. Total Regional Entities (A-G)</b>	<b>24221</b>	<b>18417</b>	<b>19087</b>	<b>19318</b>	<b>429.03</b>	<b>17876</b>	<b>433.75</b>	<b>-4.72</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	1085	1260	28	1147
	Guru Nanak Dev TPS(Bhatinda)	440	250	339	7	278
	Guru Hargobind Singh TPS(L.mbt)	920	694	929	19	775
	Goindwal(GVK)		0	0	0	0
	Rajpura	700	373	370	8	325
	Talwandi Saboo	660	0	301	1.67	69
	Thermal (Total)	<b>3980</b>	<b>2402</b>	<b>3199</b>	<b>62</b>	<b>2594</b>
	Total Hydro	1148	601	840	18.79	783
<b>Total Punjab</b>	<b>5128</b>	<b>3003</b>	<b>4039</b>	<b>81.05</b>	<b>3377</b>	
Haryana	Panipat TPS	1367	516	509	12.14	506
	DCRTPP (Yamuna nagar)	600	524	502	12.20	508
	Faridabad GPS (NTPC)	432	366	371	8.88	370
	RGTPP (khedar) (IPP)	1200	469	456	11.34	473
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	737	740	19.09	795
	Thermal (Total)	4944	2612	2578	64	2652
	Total Hydro	62	29	24	0.64	27
	<b>Total Haryana</b>	<b>5006</b>	<b>2641</b>	<b>2602</b>	<b>64.29</b>	<b>2679</b>
Rajasthan	kota TPS	1240	892	909	21.46	894
	suratgarh TPS	1500	1232	12136	29.53	1230
	Chabra TPS	750	543	546	13.40	558
	Dholpur GPS	330	86	74	1.79	74
	Ramgarh GPS	221	107	112	2.50	104
	RAPS A (NPC)	300	170	170	4.12	172
	Barsingsar (NLC)	250	95	97	2.06	86
	Giral LTPS	250	70	70	1.52	63
	Rajwest LTPS (IPP)	1080	873	796	20.47	853
	VSLP LTPS (IPP)	135	0	0	0.00	0
	Kalisindh Thermal	600	0	0	0.00	0
	Kawai(Adani)	1320	940	936	25.71	1071
	Thermal (Total)	7976	5008	15846	123	5106
	Total Hydro	550	0	0	0.00	0
	Wind power	2798	1008	1234	28.26	1177
	Biomass	99	40	40	0.95	40
	Solar	730	0	0	0.37	15
	Renewable/Others (Total)	3627	1048	1274	30	1232
<b>Total Rajasthan</b>	<b>12153</b>	<b>6056</b>	<b>17120</b>	<b>152.12</b>	<b>6338</b>	
UP	Anpara TPS	1630	1459	1451	31.40	1308
	Obra TPS	1288	580	548	12.30	513
	Paricha TPS	1140	855	373	15.30	638
	Panki TPS	210	145	175	3.40	142
	Harduaganj TPS	665	421	432	9.30	388
	Tanda TPS (NTPC)	440	267	275	6.71	280
	Roza TPS (IPP)	1200	820	1110	22.71	946
	Anpara-C (IPP)	1200	932	977	22.82	951
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	279	400	7.28	303
	Thermal (Total)	8223	5758	5741	131	5467
	Vishnuparyag HPS (IPP)	400	0	396	7.86	327
	Other Hydro	527	120	111	2.88	120
	Cogeneration	981	50	50	1.20	50
	<b>Total UP</b>	<b>10131</b>	<b>5928</b>	<b>6298</b>	<b>143.15</b>	<b>5637</b>
Uttarakhand	Total Hydro	1303	737	715	17.30	721
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>737</b>	<b>715</b>	<b>17.30</b>	<b>721</b>
Delhi	Rajghat TPS	135	0	91	1.68	70
	Delhi Gas Turbine	282	99	135	3.02	126
	Pragati Gas Turbine	330	137	282	4.91	205
	Rithala GPS	95	0	0	0.00	0
	Bawana GPS	1370	291	283	7.05	294
	Badarpur TPS (NTPC)	705	541	509	12.87	536
	Thermal (Total)	2917	1068	1300	29.53	1230
	<b>Total Delhi</b>	<b>2917</b>	<b>1068</b>	<b>1300</b>	<b>29.53</b>	<b>1230</b>
HP	Baspa HPS (IPP)	300	303	333	7.52	314
	Malana HPS (IPP)	86	103	103	2.46	103
	Other Hydro	728	597	575	14.57	607
	<b>Total HP</b>	<b>1114</b>	<b>1003</b>	<b>1011</b>	<b>24.55</b>	<b>1023</b>
J & K	Baglihar HPS (IPP)	450	440	440	10.56	440
	Other Hydro/IPP	436	93	44	1.39	58
	Gas/Diesel/Others	209	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>1094</b>	<b>533</b>	<b>484</b>	<b>11.95</b>	<b>498</b>
<b>Total State Control Area Generation</b>		<b>38846</b>	<b>20969</b>	<b>33569</b>	<b>523.94</b>	<b>21504</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>3604</b>	<b>5416</b>	<b>114.29</b>	<b>4762</b>
<b>Total Regional Availability(Gross)</b>		<b>63067</b>	<b>43660</b>	<b>58303</b>	<b>1067.25</b>	<b>44142</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	11233	10117	9000	215.75	8989
State Control Area Hydro	5589	3023	3185	83.97	3171
<b>Total Regional Hydro</b>	<b>16823</b>	<b>13140</b>	<b>12185</b>	<b>299.71</b>	<b>12161</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	300	500	0	6.65	0.00	6.65
Gwalior-Agra (D/C)	1266	1741	1993	0	35.76	0.00	35.76
Zerda-Kankroli	-305	-313	0	421	0.00	8.14	-8.14
Zerda-Bhinmal	-343	-342	0	457	0.00	8.10	-8.10
Malanpur-Auraiya	-111	-59	0	141	0.00	2.08	-2.08
Badod-Kota/Morak	-114	-99	0	138	0.00	2.76	-2.76
Mundra-Mohindergarh(HVDC)	1998	2002	2006	0	46.40	0.00	46.40
<b>Sub Total WR</b>	<b>2691</b>	<b>3230</b>			<b>88.81</b>	<b>21.08</b>	<b>67.73</b>
Pusaui Bypass	200	200	200	0	4.83	0.00	4.83
MZP- GKP (D/C)	296	640	880	0	14.06	0.00	14.06
Patna-Balia(D/C)	179	512	641	0	10.98	0.00	10.98
B'Sharif-Balia (D/C)	74	479	558	0	9.62	0.00	9.62
Pusaui-Balia	0	20	24	0	0.09	0.00	0.09
Gaya-Fatehpur (765 Kv)	0	0	0	0	0.00	0.00	0.00
Pusaui-Sahupuri	154	167	185	0	3.74	0.00	3.74
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
Sasaram - Fatehpur(765 KV)	10	168	255	122	3.24	0.00	3.24
<b>Sub Total ER</b>	<b>913</b>	<b>2186</b>			<b>46.56</b>	<b>0.00</b>	<b>46.56</b>
<b>Total IR Exch</b>	<b>3604</b>	<b>5416</b>			<b>135.37</b>	<b>21.08</b>	<b>114.29</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
26.08	1.76	27.84	19.79	8.02	-6.86	15.55	0.00	0.00

Total IR Schedule (MU)			Total IR Actual (MU)			Net IR UI (MU)		
Through ER	Through WR Inclds Mndra	Total	Through ER	Through WR	Total	Through ER	Through WR	Total
40.77	76.52	117.29	46.56	67.73	114.29	5.79	-8.79	-3.00

**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	0.00	0.03	2.28	25.76	49.55	23.59	19.25	6.04	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				
50.49	16.04	49.79	0.09	50.05	0.11	0.09	50.39	49.99

**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	408	18:01	398	14:16	0.0	0.0	0.0	0.0
Gorakhpur	400	437	06:12	412	22:25	0.0	0.0	76.3	20.7
Bareilly	400	412	06:05	391	13:55	0.0	0.0	0.0	0.0
Kanpur	400	415	17:23	395	13:54	0.0	0.0	0.0	0.0
Dadri	400	413	18:04	390	14:22	0.0	0.0	0.0	0.0
Ballabgarh	400	419	18:04	393	13:54	0.0	0.0	0.0	0.0
Bawana	400	413	06:05	399	00:07	0.0	0.0	0.0	0.0
Bassi	400	421	18:32	394	22:32	0.0	0.0	0.3	0.0
Hissar	400	408	18:01	384	13:51	0.0	10.7	0.0	0.0
Moga	400	412	18:06	391	14:52	0.0	0.0	0.0	0.0
Abdullapur	400	409	06:06	396	14:45	0.0	0.0	0.0	0.0
Nalagarh	400	407	18:07	385	15:22	0.0	5.3	0.0	0.0
Kishenpur	400	410	18:33	399	13:49	0.0	0.0	0.0	0.0
Wagoora	400	401	03:00	392	08:00	0.0	0.9	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	768	08:01	727	13:54	0.0	14.5	0.0	0.0
Balia	765	790	08:01	748	22:24	0.0	0.0	0.0	0.0
Moga	765	799	08:02	756	13:37	0.0	0.0	0.0	0.0
Agra	765	789	18:04	745	13:54	0.0	0.0	0.0	0.0
Bhiwani	765	798	18:04	753	13:52	0.0	0.0	0.0	0.0
Unnao	765	755	06:07	719	13:51	8.5	45.1	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 (m³/s)	Usage (m³/s)
Bhakra	513.59	445.62	485.71	610.73	486.77	636.01	1570.37	736.35
Pong	426.72	384.05	401.78	259.17	402.45	273.51	414.90	365.94
Tehri	829.79	740.04	746.35	32.00	NA	NA	438.59	242.00
Koteshwar	612.50	598.50	610.82	4.95	608.40	3.98	432.00	281.00
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. System Constraints:**

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

**XII. Weather Conditions For 21.06.2014 :**

1. Hot & Humid weather.

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

0.00

**XIV. Synchronisation of new 220 / 400 / 765 KV lines and energising of bus //substation :**

**XV. Tripping of lines in pooling stations :**

**XVI. Complete generation loss in a generating station :**

Report for : 21.06.2014

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER