

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 19.05.2014  
Date of Reporting : 20.05.2014

### 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
35777	2649	38426	49.95	33484	2725	36209	49.99	824.5	75.45

\* 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	23.53	15.06		38.59	72.06	71.68	-0.38	110.27	10.23
Haryana	26.55	0.20		26.74	84.86	85.22	0.36	111.96	3.27
Rajasthan	127.57	0.26	5.66	133.48	40.26	39.27	-0.99	172.75	0.68
Delhi	19.17			19.17	71.76	70.04	-1.72	89.22	0.27
UP	127.59	8.90	2.40	138.88	103.49	106.60	3.11	245.48	58.50
Uttarakhand		12.77		12.77	20.65	21.27	0.63	34.04	0.62
HP		15.56		15.56	8.31	9.19	0.88	24.75	0.18
J & K		13.66	0.00	13.66	15.06	17.49	2.43	31.15	1.70
Chandigarh				0.00	4.49	4.93	0.44	4.93	0.00
<b>Total</b>	<b>324.41</b>	<b>66.39</b>	<b>8.06</b>	<b>398.85</b>	<b>420.94</b>	<b>425.69</b>	<b>4.75</b>	<b>824.54</b>	<b>75.45</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	5106	0	-114	98	4299	750	-109	298	9.35
Haryana	5506	339	31	320	4457	0	123	117	6.32
Rajasthan	6832	0	-63	-247	6664	0	-21	-416	-6.12
Delhi	3882	0	-109	404	3383	0	-168	85	6.03
UP	9971	2135	-248	732	11239	1975	275	1404	21.07
Uttarakhand	1627	75	43	447	1324	0	39	354	9.56
HP	1051	0	-17	-836	810	0	7	-567	-13.63
J&K	1576	100	160	-456	1149	0	71	-568	-11.74
Chandigarh	225	0	14	0	160	0	1	0	0.24
<b>Total</b>	<b>35777</b>	<b>2649</b>	<b>-303</b>	<b>462</b>	<b>33484</b>	<b>2725</b>	<b>218</b>	<b>708</b>	<b>21.06</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	1214	1353	1276	29.58	1232	29.14	0.43
Rihand I STPS	1000	852	932	951	21.02	876	20.45	0.57
Rihand II STPS	1000	927	1017	1007	22.87	953	22.25	0.62
Rihand III STPS	1000	452	468	503	11.25	469	10.84	0.41
Dadri I STPS	840	813	860	840	18.63	776	19.23	-0.59
Dadri II STPS	980	980	980	980	22.55	940	23.36	-0.81
Unchahar I TPS	420	408	430	432	9.40	392	9.73	-0.32
Unchahar II TPS	420	217	216	221	4.84	202	5.08	-0.24
Unchahar III TPS	210	204	217	210	4.61	192	4.84	-0.23
ISTPP (Jhajjar)	1500	1000	715	969	19.76	823	19.89	-0.13
Dadri GPS	830	798	176	186	4.14	173	4.49	-0.35
Anta GPS	419	391	0	0	0.00	0	0.00	0.00
Auraiya GPS	663	426	148	153	3.43	143	3.49	-0.06
Dadri Solar	5	1	0	0	0.03	1	0.03	0.00
Unchahar Solar	10	0	0	0	0.00	0	0.00	0.00
<b>Sub Total (A)</b>	<b>11297</b>	<b>8684</b>	<b>7512</b>	<b>7728</b>	<b>172</b>	<b>7171</b>	<b>173</b>	<b>-1</b>
<b>B. NPC</b>								
NAPS	440	144	163	168	3.48	145	3.46	0.02
RAPS- B	440	401	445	447	9.65	402	9.62	0.03
RAPS- C	440	210	228	229	4.95	206	5.04	-0.09
<b>Sub Total (B)</b>	<b>1320</b>	<b>755</b>	<b>836</b>	<b>844</b>	<b>18.08</b>	<b>753</b>	<b>18.12</b>	<b>-0.04</b>
<b>C. NHPC</b>								
Chamera I HPS	540	535	540	360	9.43	393	9.40	0.03
Chamera II HPS	300	300	303	203	5.82	242	5.70	0.12
Chamera III HPS	231	229	234	153	3.91	163	3.80	0.11
Bairasui HPS	180	180	180	180	3.97	166	3.88	0.09
Salal-HPS	690	539	662	585	13.48	562	12.94	0.54
Tanakpur-HPS	94	31	40	40	0.96	40	0.73	0.23
Uri-HPS	480	475	477	477	11.55	481	11.40	0.15
Uri-II HPS	240	228	187	247	5.50	229	5.43	0.07
Dhauliganga-HPS	280	114	132	132	3.20	133	2.74	0.46
Dulhasti-HPS	390	387	406	399	9.54	397	9.30	0.24
Sewa-II HPS	120	122	130	130	3.09	129	2.93	0.16
Parbati 3	390	260	0	0	1.66	69	1.56	0.10
<b>Sub Total ©</b>	<b>3935</b>	<b>3400</b>	<b>3291</b>	<b>2906</b>	<b>72</b>	<b>3004</b>	<b>70</b>	<b>2</b>
<b>D. SJVNL</b>								
NJPC	1500	1605	1618	515	18.16	757	17.97	0.19
Rampur HEP	206		228	133	7.67	320	2	5.37
<b>Sub Total (D)</b>	<b>1706</b>	<b>1605</b>	<b>1846</b>	<b>648</b>	<b>25.83</b>	<b>1076</b>	<b>20.27</b>	<b>5.56</b>
<b>E. THDC</b>								
Tehri HPS	1000	382	270	127	4.88	203	4.80	0.08
Koteshwar HPS	400	100	303	90	2.83	118	2.80	0.03
<b>Sub Total (E)</b>	<b>1400</b>	<b>482</b>	<b>573</b>	<b>217</b>	<b>7.71</b>	<b>321</b>	<b>7.60</b>	<b>0.11</b>
<b>F. BBMB</b>								
Bhakra HPS	1514	746	1316	637	18.25	760	17.91	0.34
Dehar HPS	990	417	495	495	11.18	466	10.01	1.17
Pong HPS	396	23	188	0	0.63	26	0.56	0.08
<b>Sub Total (F)</b>	<b>2900</b>	<b>1187</b>	<b>1999</b>	<b>1132</b>	<b>30.06</b>	<b>1253</b>	<b>28.48</b>	<b>1.58</b>
<b>G. IPP(s)/JV(s)</b>								
ADHPL HPS(IPP)	192	0	86	35	1.77	74	1.80	-0.02
KWHEP HPS(IPP)	1000	0	501	250	9.91	413	9.53	0.38
Malana Stg-II HPS	100	0	112	0	0.64	27	0.59	0.05
Shree Cement TPS	300	0	259	234	6.20	258	5.98	0.21
Budhil HPS(IPP)	70	0	68	68	1.14	47	1.40	-0.27
<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1026</b>	<b>587</b>	<b>19.66</b>	<b>819</b>	<b>19.30</b>	<b>0.36</b>
<b>H. Total Regional Entities (A-G)</b>	<b>24221</b>	<b>16112</b>	<b>17083</b>	<b>14062</b>	<b>345.55</b>	<b>14398</b>	<b>336.40</b>	<b>9.15</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	700	420	14	593
	Guru Nanak Dev TPS(Bhatinda)	440	90	110	2	94
	Guru Hargobind Singh TPS(L.mbt)	920	364	254	7	294
	Goindwal(GVK)		0	0	0	0
	Rajpura	700	0	0	0	0
	Talwandi Saboo	660	0	0	0.00	0
	Thermal (Total)	<b>3980</b>	<b>1154</b>	<b>784</b>	<b>24</b>	<b>981</b>
	Total Punjab	<b>5128</b>	<b>1881</b>	<b>1343</b>	<b>38.59</b>	<b>1608</b>
Haryana	Panipat TPS	1367	0	0	0.00	0
	DCRTPP (Yamuna nagar)	600	279	277	6.46	269
	Faridabad GPS (NTPC)	432	377	372	9.14	381
	RGTPP (khedar) (IPP)	1200	0	0	0.00	0
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	565	303	10.95	456
	Thermal (Total)	4944	1221	952	27	1106
	Total Hydro	62	6	8	0.20	8
	Total Haryana	<b>5006</b>	<b>1227</b>	<b>960</b>	<b>26.74</b>	<b>1114</b>
Rajasthan	kota TPS	1240	880	870	19.73	822
	suratgarh TPS	1500	1310	1238	30.97	1290
	Chabra TPS	750	408	391	9.86	411
	Dholpur GPS	330	129	132	3.21	134
	Ramgarh GPS	221	106	103	2.47	103
	RAPS A (NPC)	300	206	206	4.11	171
	Barsingsar (NLC)	250	154	157	3.69	154
	Giral LTPS	250	64	64	1.89	79
	Rajwest LTPS (IPP)	1080	856	792	22.23	926
	VSLP LTPS (IPP)	135	0	0	0.00	0
	Kalisindh Thermal	600	0	0	0.00	0
	Kawai(Adani)	1320	1161	1157	29.41	1225
	Thermal (Total)	7976	5274	5110	128	5315
	Total Hydro	550	0	0	0.26	11
	Wind power	2191	110	151	4.01	167
	Biomass	91	34	34	0.81	34
	Solar	201	0	0	0.84	35
Renewable/Others (Total)	2483	144	185	5.66	236	
Total Rajasthan	<b>11009</b>	<b>5418</b>	<b>5295</b>	<b>133.48</b>	<b>5562</b>	
UP	Anpara TPS	1630	1527	1548	32.70	1363
	Obra TPS	1288	352	337	7.70	321
	Paricha TPS	1140	833	822	18.20	758
	Panki TPS	210	80	85	1.60	67
	Harduaganj TPS	665	0	0	0.00	0
	Tanda TPS (NTPC)	440	381	382	8.82	368
	Roza TPS (IPP)	1200	1098	1098	26.52	1105
	Anpara-C (IPP)	1200	1002	994	23.99	1000
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	203	401	8.05	335
	Thermal (Total)	8223	5476	5667	128	5316
	Vishnuparyag HPS (IPP)	400	217	207	4.83	201
	Other Hydro	527	202	230	4.07	169
	Cogeneration	981	100	100	2.40	100
	Total UP	<b>10131</b>	<b>5995</b>	<b>6204</b>	<b>138.88</b>	<b>5586</b>
Uttarakhand	Total Hydro	1303	590	505	12.77	532
	Total Uttarakhand	<b>1303</b>	<b>590</b>	<b>505</b>	<b>12.77</b>	<b>532</b>
Delhi	Rajghat TPS	135	111	57	1.59	66
	Delhi Gas Turbine	282	106	112	2.61	109
	Pragati Gas Turbine	330	136	121	3.11	129
	Rithala GPS	95	0	0	0.00	0
	Bawana GPS	1370	0	0	0.00	0
	Badarpur TPS (NTPC)	705	498	423	11.87	495
	Thermal (Total)	2917	851	713	19.17	799
Total Delhi	<b>2917</b>	<b>851</b>	<b>713</b>	<b>19.17</b>	<b>799</b>	
HP	Baspa HPS (IPP)	300	0	115	2.51	104
	Malana HPS (IPP)	86	86	0	0.71	30
	Other Hydro	728	483	464	12.34	514
	Total HP	<b>1114</b>	<b>569</b>	<b>579</b>	<b>15.56</b>	<b>648</b>
J & K	Baglihar HPS (IPP)	450	440	438	10.52	438
	Other Hydro/IPP	436	128	132	3.14	131
	Gas/Diesel/Others	209	0	0	0.00	0
	Total J & K	<b>1094</b>	<b>568</b>	<b>570</b>	<b>13.66</b>	<b>569</b>
Total State Control Area Generation		<b>37702</b>	<b>17099</b>	<b>16169</b>	<b>398.85</b>	<b>16418</b>
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			<b>4687</b>	<b>5768</b>	<b>103.80</b>	<b>4325</b>
Total Regional Availability(Gross)		<b>61923</b>	<b>38869</b>	<b>35999</b>	<b>848.19</b>	<b>35140</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	11233	8408	5188	148.03	6168
State Control Area Hydro	5589	2662	2451	66.39	2565
Total Regional Hydro	<b>16823</b>	<b>11070</b>	<b>7639</b>	<b>214.42</b>	<b>8733</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	250	500	500	0	7.92	0.00	7.92
Gwalior-Agra (D/C)	1968	2128	2200	0	34.68	0.00	34.68
Zerda-Kankroli	-110	-71	0	271	0.00	3.72	-3.72
Zerda-Bhinmal	-101	-35	2	240	0.00	2.76	-2.76
Malanpur-Auraiya	-40	-16	0	48	0.00	0.64	-0.64
Badod-Kota/Morak	-88	-82	0	115	0.00	1.60	-1.60
Mundra-Mohindergarh(HVDC)	2001	1999	2006	0	48.32	0.00	48.32
<b>Sub Total WR</b>	<b>3880</b>	<b>4423</b>			<b>90.93</b>	<b>8.72</b>	<b>82.21</b>
Pusaui Bypass	400	400	400	0	9.67	0.00	9.67
MZP- GKP (D/C)	-10	240	292	0	1.49	0.00	1.49
Patna-Balia(D/C)	270	311	419	0	6.81	0.00	6.81
B'Sharif-Balia (D/C)	309	308	341	0	4.58	0.00	4.58
Pusaui-Balia	-47	-66	0	119	0.00	1.19	-1.19
Gaya-Fatehpur (765 Kv)	-146	-29	0	215	0.00	1.78	-1.78
Pusaui-Sahupuri	155	182	193	0	3.37	0.00	3.37
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)	-124	-1	141	228	0.00	1.37	-1.37
<b>Sub Total ER</b>	<b>807</b>	<b>1345</b>			<b>25.92</b>	<b>4.33</b>	<b>21.59</b>
<b>Total IR Exch</b>	<b>4687</b>	<b>5768</b>			<b>116.85</b>	<b>13.05</b>	<b>103.80</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
26.85	0.59	27.44	9.36	-0.21	-12.56	9.15	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
24.24	75.78	100.02	21.59	82.21	103.80	-2.65	6.43	3.78

**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	>50.50
0.00	0.00	1.98	21.06	69.28	69.85	6.78	2.31	0.54	0.00

Frequency (Hz)				Average Frequency	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX (Hz)	MIN
Freq	Time	Freq	Time	Hz				
50.28	18.05	49.72	10.15	49.96	0.07	0.08	50.15	49.78

**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	406	21:54	403	13:39	0.0	0.0	0.0	0.0
Gorakhpur	400	440	17:32	411	02:30	0.0	0.0	86.9	27.4
Bareilly	400	417	13:17	396	00:36	0.0	0.0	0.0	0.0
Kanpur	400	410	23:51	405	23:09	0.0	0.0	0.0	0.0
Dadri	400	413	00:00	413	00:00	0.0	0.0	0.0	0.0
Ballabgarh	400	424	06:04	407	09:39	0.0	0.0	5.7	0.0
Bawana	400	419	06:05	400	10:22	0.0	0.0	0.0	0.0
Bassi	400	427	18:02	406	10:07	0.0	0.0	32.5	0.0
Hissar	400	401	00:00	401	00:00	0.0	0.0	0.0	0.0
Moga	400	412	06:03	395	09:37	0.0	0.0	0.0	0.0
Abdullapur	400	424	06:05	405	20:18	0.0	0.0	1.1	0.0
Nalagarh	400	420	06:04	393	14:46	0.0	0.0	0.0	0.0
Kishenpur	400	413	17:02	399	20:19	0.0	0.0	0.0	0.0
Wagoora	400	408	17:58	390	20:19	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	773	18:20	743	22:11	0.0	0.0	0.0	0.0
Balia	765	768	11:01	734	02:30	0.0	6.7	0.0	0.0
Moga	765	784	06:04	750	09:39	0.0	0.0	0.0	0.0
Agra	765	789	06:04	755	22:11	0.0	0.0	0.0	0.0
Bhiwani	765	796	06:05	758	09:39	0.0	0.0	0.0	0.0
Unnao	765	765	17:30	734	02:30	0.0	16.5	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	480.42	468.02	474.81	350.94	467.11	658.08
Pong	426.72	384.05	403.22	296.79	399.52	209.93	79.63	42.76
Tehri	829.79	740.04	746.15	29.76	NA	NA	111.57	168.00
Koteshwar	612.50	598.50	609.76	4.44	604.50	2.06	168.00	188.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	206.25	230.88
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 19.05.2014 :**  
Normal 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 : 19.05.2014

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER