

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 29.05.2014  
Date of Reporting : 30.05.2014

### 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
39598	2205	41803	49.86	39356	1105	40461	50.13	935.2	55.07

\* 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	45.88	15.43		61.31	82.27	82.41	0.13	143.72	0.00
Haryana	46.71	0.00		46.71	92.26	92.55	0.29	139.26	0.00
Rajasthan	113.53	0.00	25.78	139.31	49.75	49.32	-0.43	188.63	0.18
Delhi	19.89			19.89	83.23	84.44	1.21	104.33	0.00
UP	124.31	11.82	1.20	137.33	121.70	125.56	3.86	262.89	51.60
Uttarakhand		13.74		13.74	20.52	22.35	1.84	36.10	1.59
HP		20.21		20.21	6.40	5.98	-0.42	26.19	0.00
J & K		10.51	0.00	10.51	17.95	17.76	-0.19	28.27	1.70
Chandigarh				0.00	4.70	5.83	1.14	5.83	0.00
<b>Total</b>	<b>350.33</b>	<b>71.71</b>	<b>26.98</b>	<b>449.02</b>	<b>478.77</b>	<b>486.20</b>	<b>7.43</b>	<b>935.22</b>	<b>55.07</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 transactio	Demand Met	Shortage	UI	STOA/PX transactio	STOA/PX transactio
Punjab	6046	0	-28	696	6014	0	106	696	16.77
Haryana	6291	0	-211	616	6062	0	269	448	10.69
Rajasthan	7354	0	-51	-154	7763	0	83	-384	-4.20
Delhi	4534	0	118	516	4137	0	65	167	7.45
UP	10821	2030	-137	613	11678	1105	335	1389	21.45
Uttarakhand	1722	75	153	281	1426	0	116	245	6.79
HP	1010	0	-121	-1099	954	0	-57	-847	-18.46
J&K	1561	100	148	-501	1116	0	-109	-603	-12.75
Chandigarh	259	0	36	0	206	0	31	0	0.24
<b>Total</b>	<b>39598</b>	<b>2205</b>	<b>-93</b>	<b>968</b>	<b>39356</b>	<b>1105</b>	<b>839</b>	<b>1111</b>	<b>27.97</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	1698	1839	1855	40.80	1700	40.73	0.07
Rihand I STPS	1000	816	854	928	19.64	818	19.32	0.32
Rihand II STPS	1000	740	759	807	17.76	740	17.56	0.20
Rihand III STPS	1000	881	866	991	20.83	868	20.92	-0.10
Dadri I STPS	840	813	889	840	18.91	788	19.49	-0.57
Dadri II STPS	980	980	1000	890	22.33	931	23.17	-0.83
Unchahar I TPS	420	406	422	412	8.92	372	9.68	-0.77
Unchahar II TPS	420	404	432	420	8.96	373	9.57	-0.61
Unchahar III TPS	210	202	215	202	4.22	176	4.76	-0.53
ISTPP (Jhajjar)	1500	1000	493	453	10.32	430	10.55	-0.23
Dadri GPS	830	798	353	342	7.86	328	7.95	-0.09
Anta GPS	419	391	0	0	0.00	0	0.06	-0.06
Auraiya GPS	663	421	145	135	3.26	136	3.29	-0.02
Dadri Solar	5	1	0	0	0.00	0	0.03	-0.03
Unchahar Solar	10	0	0	0	0.00	0	0.00	0.00
<b>Sub Total (A)</b>	<b>11297</b>	<b>9551</b>	<b>8267</b>	<b>8275</b>	<b>184</b>	<b>7659</b>	<b>187</b>	<b>-3</b>
<b>B. NPC</b>								
NAPS	440	143	161	164	3.38	141	3.43	-0.06
RAPS- B	440	401	435	445	9.44	393	9.62	-0.18
RAPS- C	440	210	224	231	4.89	204	5.04	-0.15
<b>Sub Total (B)</b>	<b>1320</b>	<b>754</b>	<b>820</b>	<b>840</b>	<b>17.71</b>	<b>738</b>	<b>18.10</b>	<b>-0.39</b>
<b>C. NHPC</b>								
Chamera I HPS	540	534	540	540	11.50	479	11.50	0.00
Chamera II HPS	300	300	300	300	7.29	304	7.20	0.09
Chamera III HPS	231	229	230	229	5.59	233	5.50	0.09
Bairasui HPS	180	180	180	180	4.39	183	4.32	0.07
Salal-HPS	690	653	677	673	15.95	664	15.68	0.27
Tanakpur-HPS	94	34	50	37	0.90	37	0.83	0.07
Uri-HPS	480	475	476	476	11.51	480	11.40	0.11
Uri-II HPS	240	235	248	247	5.77	241	5.64	0.13
Dhauliganga-HPS	280	136	138	138	3.27	136	3.27	0.00
Dulhasti-HPS	390	387	405	399	9.52	397	9.30	0.22
Sewa-II HPS	120	122	131	130	3.07	128	2.93	0.15
Parbati 3	390	260	200	100	2.36	98	1.80	0.56
<b>Sub Total ©</b>	<b>3935</b>	<b>3546</b>	<b>3575</b>	<b>3449</b>	<b>81</b>	<b>3380</b>	<b>79</b>	<b>2</b>
<b>D. SJVNL</b>								
NJPC	1500	1605	1626	996	30.59	1274	30.22	0.37
Rampur HEP	206	203	206	206	3.29	137	4.92	-1.63
<b>Sub Total (D)</b>	<b>1706</b>	<b>1808</b>	<b>1832</b>	<b>1202</b>	<b>33.88</b>	<b>1412</b>	<b>35.14</b>	<b>-1.26</b>
<b>E. THDC</b>								
Tehri HPS	1000	384	387	260	5.19	216	5.10	0.09
Koteshwar HPS	400	116	306	91	2.51	105	2.80	-0.29
<b>Sub Total (E)</b>	<b>1400</b>	<b>500</b>	<b>693</b>	<b>351</b>	<b>7.70</b>	<b>321</b>	<b>7.90</b>	<b>-0.20</b>
<b>F. BBMB</b>								
Bhakra HPS	1514	648	1314	485	15.89	662	15.54	0.35
Dehar HPS	990	470	660	660	13.21	550	11.27	1.94
Pong HPS	396	107	308	63	2.67	111	2.56	0.11
<b>Sub Total (F)</b>	<b>2900</b>	<b>1224</b>	<b>2282</b>	<b>1208</b>	<b>31.77</b>	<b>1324</b>	<b>29.37</b>	<b>2.40</b>
<b>G. IPP(s)/JV(s)</b>								
ADHPL HPS(IPP)	192	0	197	158	3.29	137	2.69	0.60
KWHEP HPS(IPP)	1000	0	726	549	16.46	686	15.54	0.92
Malana Stg-II HPS	100	0	112	0	1.32	55	1.23	0.09
Shree Cement TPS	300	0	142	142	3.44	143	3.56	-0.12
Budhil HPS(IPP)	70	0	68	36	1.24	52	1.18	0.05
<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1245</b>	<b>885</b>	<b>25.75</b>	<b>1073</b>	<b>24.21</b>	<b>1.54</b>
<b>H. Total Regional Entities (A-G)</b>	<b>24221</b>	<b>17382</b>	<b>18714</b>	<b>16210</b>	<b>381.73</b>	<b>15906</b>	<b>381.13</b>	<b>0.60</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	875	18	761
	Guru Nanak Dev TPS(Bhatinda)	440	80	80	2	75
	Guru Hargobind Singh TPS(L.mbt)	920	358	365	10	424
	Goindwal(GVK)		0	0	0	0
	Rajpura	700	648	649	16	652
	Talwandi Saboo	660	0	0	0.00	0
	Thermal (Total)	<b>3980</b>	<b>1786</b>	<b>1969</b>	<b>46</b>	<b>1912</b>
	Total Hydro	1148	334	632	15.43	643
	<b>Total Punjab</b>	<b>5128</b>	<b>2120</b>	<b>2601</b>	<b>61.31</b>	<b>2554</b>
Haryana	Panipat TPS	1367	437	442	10.55	440
	DCRTPP (Yamuna nagar)	600	268	0	2.21	92
	Faridabad GPS (NTPC)	432	344	344	8.64	360
	RGTPP (khedar) (IPP)	1200	567	560	12.83	535
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	537	560	12.49	520
	Thermal (Total)	4944	2153	1906	47	1946
	Total Hydro	62	0	0	0.00	0
	<b>Total Haryana</b>	<b>5006</b>	<b>2153</b>	<b>1906</b>	<b>46.71</b>	<b>1946</b>
	Rajasthan	kota TPS	1240	1053	1063	24.56
suratgarh TPS		1500	1038	1110	25.66	1023
Chabra TPS		750	443	369	11.54	1069
Dholpur GPS		330	124	130	3.18	481
Ramgarh GPS		221	48	88	1.46	133
RAPS A (NPC)		300	192	201	4.05	61
Barsingsar (NLC)		250	19	192	4.34	169
Giral LTPS		250	70	70	1.27	181
Rajwest LTPS (IPP)		1080	615	815	18.19	53
VSLP LTPS (IPP)		135	0	0	0.00	758
Kalisindh Thermal		600	0	0	0.00	0
Kawai(Adani)		1320	806	798	19.29	0
Thermal (Total)		7976	4408	14836	114	4730
Total Hydro		550	0	0	0.00	0
Wind power		2191	1107	909	24.22	0
Biomass		91	27	27	0.66	1009
Solar		201	0	0	0.91	27
Renewable/Others (Total)		2483	1134	936	26	1074
<b>Total Rajasthan</b>		<b>11009</b>	<b>5542</b>	<b>15772</b>	<b>139.31</b>	<b>5805</b>
UP	Anpara TPS	1630	1389	1322	32.90	1371
	Obra TPS	1288	170	168	4.00	167
	Paricha TPS	1140	55	600	10.70	446
	Panki TPS	210	63	149	2.50	104
	Harduaganj TPS	665	360	350	8.90	371
	Tanda TPS (NTPC)	440	373	370	9.06	378
	Roza TPS (IPP)	1200	1116	1116	26.74	1114
	Anpara-C (IPP)	1200	856	846	20.21	842
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	403	401	9.29	387
	Thermal (Total)	8223	4785	5322	124	5180
	Vishnuparyag HPS (IPP)	400	406	311	7.92	330
	Other Hydro	527	168	173	3.90	163
	Cogeneration	981	50	50	1.20	50
	<b>Total UP</b>	<b>10131</b>	<b>5409</b>	<b>5856</b>	<b>137.33</b>	<b>5392</b>
	Uttarakhand	Total Hydro	1303	625	520	13.74
<b>Total Uttarakhand</b>		<b>1303</b>	<b>625</b>	<b>520</b>	<b>13.74</b>	<b>573</b>
Delhi	Rajghat TPS	135	92	89	2.09	87
	Delhi Gas Turbine	282	137	142	3.23	135
	Pragati Gas Turbine	330	135	141	3.35	140
	Rithala GPS	95	0	0	0.00	0
	Bawana GPS	1370	0	0	0.00	0
	Badarpur TPS (NTPC)	705	495	505	11.22	468
	Thermal (Total)	2917	859	877	19.89	829
	<b>Total Delhi</b>	<b>2917</b>	<b>859</b>	<b>877</b>	<b>19.89</b>	<b>829</b>
HP	Baspa HPS (IPP)	300	307	205	5.31	221
	Malana HPS (IPP)	86	111	48	1.04	44
	Other Hydro	728	596	594	13.86	577
	<b>Total HP</b>	<b>1114</b>	<b>1014</b>	<b>847</b>	<b>20.21</b>	<b>842</b>
J & K	Baglihar HPS (IPP)	450	440	400	10.51	438
	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>440</b>	<b>400</b>	<b>10.51</b>	<b>438</b>
<b>Total State Control Area Generation</b>		<b>37702</b>	<b>18162</b>	<b>28779</b>	<b>449.02</b>	<b>18379</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>5012</b>	<b>5631</b>	<b>123.92</b>	<b>5163</b>
<b>Total Regional Availability(Gross)</b>		<b>61923</b>	<b>41888</b>	<b>50620</b>	<b>954.67</b>	<b>39448</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	11233	9417	6917	175.53	7314
State Control Area Hydro	5589	2581	2572	71.71	2658
<b>Total Regional Hydro</b>	<b>16823</b>	<b>11998</b>	<b>9489</b>	<b>247.25</b>	<b>9972</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	500	300	500	0	8.53	0.00	8.53
Gwalior-Agra (D/C)	1709	1822	1929	0	37.84	0.00	37.84
Zerda-Kankroli	-132	-211	0	321	0.00	5.24	-5.24
Zerda-Bhinmal	-116	-176	0	315	0.00	4.32	-4.32
Malanpur-Auraiya	-55	-42	0	78	0.00	1.12	-1.12
Badod-Kota/Morak	-74	-79	0	109	0.00	2.06	-2.06
Mundra-Mohindergarh(HVDC)	2001	2002	2005	0	48.35	0.00	48.35
<b>Sub Total WR</b>	<b>3833</b>	<b>3616</b>			<b>94.72</b>	<b>12.74</b>	<b>81.98</b>
Pusaui Bypass	400	400	400	0	9.63	0.00	9.63
MZP- GKP (D/C)	160	440	660	0	9.16	0.00	9.16
Patna-Balia(D/C)	251	457	487	0	8.54	0.00	8.54
B Sharif-Balia (D/C)	287	432	460	0	8.57	0.00	8.57
Pusaui-Balia	-71	-30	24	79	0.00	0.99	-0.99
Gaya-Fatehpur (765 Kv)	-28	72	204	68	1.13	0.00	1.13
Pusaui-Sahupuri	165	116	189	0	3.55	0.00	3.55
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)	15	128	294	70	2.35	0.00	2.35
<b>Sub Total ER</b>	<b>1179</b>	<b>2015</b>			<b>42.93</b>	<b>0.99</b>	<b>41.95</b>
<b>Total IR Exch</b>	<b>5012</b>	<b>5631</b>			<b>137.65</b>	<b>13.73</b>	<b>123.92</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
30.68	3.51	34.19	9.14	0.85	-0.01	-0.01	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
43.33	73.08	116.41	41.95	81.98	123.92	-1.38	8.89	7.51

**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	1.44	7.13	24.46	59.63	55.94	13.95	5.06	0.67	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				
50.31	6.06	49.60	19.46	49.96	0.12	0.10	50.30	49.77

**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	06:05	401	02:18	0.0	0.0	0.0	0.0
Gorakhpur	400	408	08:00	384	00:10	0.0	6.5	0.0	0.0
Bareilly	400	414	19:07	398	00:09	0.0	0.0	0.0	0.0
Kanpur	400	415	06:05	400	15:42	0.0	0.0	0.0	0.0
Dadri	400	407	02:34	399	00:08	0.0	0.0	0.0	0.0
Ballabgarh	400	414	18:31	402	22:15	0.0	0.0	0.0	0.0
Bawana	400	418	06:06	394	15:49	0.0	0.0	0.0	0.0
Bassi	400	423	05:02	403	16:43	0.0	0.0	6.4	0.0
Hissar	400	0	00:00	9999	00:00	0.0	0.0	0.0	0.0
Moga	400	410	06:04	395	16:39	0.0	0.0	0.0	0.0
Abdullapur	400	416	06:04	396	15:49	0.0	0.0	0.0	0.0
Nalagarh	400	412	06:02	397	15:25	0.0	0.0	0.0	0.0
Kishenpur	400	409	08:02	399	15:40	0.0	0.0	0.0	0.0
Wagoora	400	407	03:35	397	05:47	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	770	06:06	736	00:09	0.0	5.0	0.0	0.0
Balia	765	781	06:05	744	00:08	0.0	0.0	0.0	0.0
Moga	765	777	18:31	757	15:53	0.0	0.0	0.0	0.0
Agra	765	789	06:06	750	16:46	0.0	0.0	0.0	0.0
Bhiwani	765	797	06:06	757	15:47	0.0	0.0	0.0	0.0
Unnao	765	757	06:06	731	15:39	0.0	30.0	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	479.67	454.47	478.86	434.29	484.53	572.68
Pong	426.72	384.05	402.75	281.22	399.60	209.93	60.43	207.90
Tehri	829.79	740.04	743.05	14.17	NA	NA	120.72	182.00
Koteshwar	612.50	598.50	609.79	4.44	599.65	0.30	182.00	167.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	285.12	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 29.05.2014 :**

1. Normal weather in NR.

**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 : 29.05.2014

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER