

पावर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)

उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 24.08.2014

Date of Reporting : 25.08.2014



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
45445	2890	48335	50.08	46370	3597	49967	49.92	1072.1	90.88

* 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	81.30	21.83		103.13	111.64	112.16	0.52	215.29	3.20
Haryana	95.05	0.46		95.51	92.58	89.96	-2.62	185.47	0.00
Rajasthan	121.70	0.16	8.96	130.82	78.02	83.37	5.35	214.18	5.10
Delhi	28.58			28.58	77.05	78.95	1.90	107.54	0.11
UP	112.10	17.40	0.36	129.86	117.20	122.32	5.13	252.18	76.89
Uttarakhand		16.71		16.71	15.02	16.09	1.07	32.81	3.89
HP		25.75		25.75	-0.78	-0.53	0.25	25.21	0.00
J & K		14.89	0.00	14.89	15.24	18.86	3.63	33.76	1.70
Chandigarh				0.00	5.06	5.65	0.59	5.65	0.00
Total	438.74	97.19	9.32	545.25	511.03	526.83	15.80	1072.08	90.88

* 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	9460	75	47	1409	9183	0	-3	1428	9503
Haryana	8188	0	-526	1081	8399	0	-73	892	8639
Rajasthan	8343	0	-220	423	9027	257	319	-393	9618
Delhi	4485	0	-14	576	4580	0	5	362	5175
UP	10444	2645	258	227	11430	3200	330	1533	11494
Uttarakhand	1636	70	131	84	1363	140	59	84	1636
HP	1055	0	-23	-1316	972	0	42	-1469	1163
J&K	1575	100	141	-467	1185	0	235	-814	1626
Chandigarh	260	0	34	0	231	0	28	0	284
Total	45445	2890	-172	2018	46370	3597	941	1623	46873

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

Diversity is 1.05

III. Regional Entities :

Entity	Station/ Constituent	Inst. Capacity (Effective) MW	Declared Capacity(MW)	Peak MW (Gross)	Off Peak MW (Gross)	Energy (Net MU)	Average Sentout(MW)	Schedule Net MU	UI Net MU
A. NTPC	Singrauli STPS	2000	1252	1569	1261	30.12	1255	29.82	0.30
	Rihand I STPS	1000	421	457	464	10.99	458	10.01	0.98
	Rihand II STPS	1000	965	1034	1037	24.58	1024	22.93	1.65
	Rihand III STPS	1000	468	488	509	11.88	495	11.07	0.81
	Dadri I STPS	840	813	725	878	20.53	855	19.39	1.14
	Dadri II STPS	980	478	466	499	11.61	484	11.43	0.18
	Unchahar I TPS	420	193	212	221	5.19	216	4.61	0.58
	Unchahar II TPS	420	400	430	441	10.39	433	9.47	0.92
	Unchahar III TPS	210	198	217	217	5.13	214	4.68	0.45
	ISTPP (Jhajjar)	1500	950	952	973	21.04	877	21.59	-0.55
	Dadri GPS	830	788	374	379	8.50	354	8.53	-0.03
	Anta GPS	419	393	231	256	6.01	250	5.90	0.11
	Auraiya GPS	663	635	303	304	6.88	287	6.71	0.17
	Dadri Solar	5	1	0	0	0.03	1	0.03	0.00
	Unchahar Solar	10	3	0	0	0.04	1	0.07	-0.03
	Sub Total (A)	11297	7957	7458	7439	173	7205	166	7
B. NPC	NAPS	440	268	309	311	6.47	270	6.43	0.04
	RAPS- B	440	202	224	226	4.83	201	4.85	-0.01
	RAPS- C	440	380	409	406	8.68	361	9.12	-0.44
	Sub Total (B)	1320	850	942	943	19.98	832	20.40	-0.42
C. NHPC	Chamera I HPS	540	534	547	544	8.55	356	8.40	0.15
	Chamera II HPS	300	300	300	309	6.43	268	6.35	0.08
	Chamera III HPS	231	229	229	228	4.36	182	4.35	0.01
	Bairasuil HPS	180	178	180	81	1.96	82	1.84	0.12
	Salal-HPS	690	657	674	660	16.07	669	15.76	0.31
	Tanakpur-HPS	94	87	90	89	2.12	88	2.09	0.03
	Uri-HPS	480	429	463	448	10.97	457	10.45	0.52
	Uri-II HPS	240	238	241	242	5.75	239	5.71	0.04
	Dhauliganga-HPS	280	207	207	207	5.00	208	4.97	0.03
	Dulhasti-HPS	390	386	396	395	9.30	387	9.26	0.03
	Sewa-II HPS	120	119	126	0	0.77	32	0.70	0.07
	Parbati 3	520	130	132	132	3.16	132	3.12	0.04
	Sub Total ©	4065	3494	3583	3334	74	3102	73	1
D.SJVNL	NJPC	1500	1605	1617	1617	38.56	1607	38.52	0.04
	Rampur HEP	275	350	359	358	8.57	357	8.40	0.17
	Sub Total (D)	1775	1955	1976	1975	47.13	1964	46.92	0.21
E. THDC	Tehri HPS	1000	1044	1046	726	12.20	508	12.00	0.20
	Koteshwar HPS	400	384	400	181	4.24	177	4.20	0.04
	Sub Total (E)	1400	1428	1446	907	16.44	685	16.20	0.24
F. BBMB	Bhakra HPS	1514	1220	1341	1089	29.47	1228	29.28	0.20
	Dehar HPS	990	572	825	560	13.97	582	13.73	0.25
	Pong HPS	396	157	384	132	3.90	162	3.77	0.12
	Sub Total (F)	2900	1949	2550	1781	47.34	1973	46.77	0.57
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	116	115	2.68	112	3.05	-0.37
	KWHEP HPS(IPP)	1000	0	1188	1060	26.35	1098	26.43	-0.08
	Malana Stg-II HPS	100	0	111	85	1.87	78	1.80	0.06
	Shree Cement TPS	300	0	149	149	3.53	147	3.56	-0.02
	Budhil HPS(IPP)	70	0	61	54	1.23	51	1.48	-0.26
Sub Total (G)	1662	0	1624	1463	35.65	1486	36.32	-0.66	
H. Total Regional Entities (A-G)	24419	17633	19579	17842	413.90	17246	405.84	8.06	

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	1165	1055	24.71	1030
	Guru Nanak Dev TPS(Bhatinda)	440	444	448	9.48	395
	Guru Hargobind Singh TPS(L.mbt)	920	930	930	20.17	841
	Goindwal(GVK)		0	0	0.00	0
	Rajpura	1400	1166	1182	26.94	1123
	Talwandi Saboo	660	0	0	0.00	0
	Thermal (Total)	4680	3705	3615	81.30	3388
	Total Hydro	1148	895	921	21.83	909
Total Punjab	5828	4600	4536	103.13	4297	
Haryana	Panipat TPS	1367	1128	1170	26.42	1101
	DCRTPP (Yamuna nagar)	600	541	532	12.68	528
	Faridabad GPS (NTPC)	432	158	180	3.96	165
	RGTPP (khedar) (IPP)	1200	956	983	22.54	939
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	1232	1233	29.45	1227
	Thermal (Total)	4944	4015	4098	95.05	3961
	Total Hydro	62	19	15	0.46	19
	Total Haryana	5006	4034	4113	95.51	3980
Rajasthan	kota TPS	1240	1055	1078	24.35	1015
	suratgarh TPS	1500	1073	1135	26.05	1085
	Chabra TPS	750	197	192	4.61	192
	Dholpur GPS	330	110	117	2.78	116
	Ramgarh GPS	271	131	133	3.67	153
	RAPS A (NPC)	300	0	0	0.00	0
	Barsingsar (NLC)	250	99	98	2.20	92
	Giral LTPS	250	70	55	1.42	59
	Rajwest LTPS (IPP)	1080	660	713	16.68	695
	VSLP LTPS (IPP)	135	0	0	0.00	0
	Kalisindh Thermal	600	480	480	11.81	492
	Kawai(Adani)	1320	1101	1157	28.14	1173
	Thermal (Total)	8026	4976	5158	122	5071
	Total Hydro	550	0	0	0.16	7
	Wind power	2798	452	399	8.12	338
	Biomass	99	30	30	0.72	30
	Solar	730	0	0	0.12	5
	Renewable/Others (Total)	3627	482	429	8.96	373
Total Rajasthan	12203	5458	5587	130.82	5451	
UP	Anpara TPS	1630	825	876	20.30	846
	Obra TPS	1288	501	516	11.50	479
	Paricha TPS	1140	787	758	18.90	788
	Panki TPS	210	68	63	1.60	67
	Harduaganj TPS	665	437	448	10.30	429
	Tanda TPS (NTPC)	440	270	287	6.80	283
	Roza TPS (IPP)	1200	644	644	15.50	646
	Anpara-C (IPP)	1200	855	853	20.60	858
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	284	284	6.60	275
	Thermal (Total)	8223	4671	4729	112.10	4671
	Vishnuparyag HPS (IPP)	400	436	436	10.50	438
	Other Hydro	527	304	298	6.90	288
	Cogeneration	981	15	15	0.36	15
Total UP	10131	5426	5478	129.86	4973	
Uttarakhand	Total Hydro	1303	753	652	16.71	696
	Total Uttarakhand	1303	753	652	16.71	696
Delhi	Rajghat TPS	135	42	45	1.07	45
	Delhi Gas Turbine	282	106	106	2.52	105
	Pragati Gas Turbine	330	277	281	6.81	284
	Rithala GPS	95	0	0	0.00	0
	Bawana GPS	1370	440	441	10.52	438
	Badarpur TPS (NTPC)	705	288	300	7.67	319
	Thermal (Total)	2917	1153	1173	28.58	1191
Total Delhi	2917	1153	1173	28.58	1191	
HP	Baspa HPS (IPP)	300	330	330	7.92	330
	Malana HPS (IPP)	86	80	80	1.77	74
	Other Hydro	728	664	667	16.06	669
	Total HP	1114	1074	1077	25.75	1073
J & K	Baglihar HPS (IPP)	450	438	438	10.49	437
	Other Hydro/IPP	436	183	187	4.40	184
	Gas/Diesel/Others	209	0	0	0.00	0
	Total J & K	1094	621	625	14.89	621
Total State Control Area Generation		39596	23119	23241	545.25	22281
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			4728	6358	138.19	5758
Total Regional Availability(Gross)		64016	47426	47441	1097.33	45285

IV. Total Hydro Generation:

Regional Entities Hydro	11432	10970	9257	216.25	9010
State Control Area Hydro	5589	3666	3588	97.19	3612
Total Regional Hydro	17021	14636	12845	313.44	12623

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	50	400	500	0	8.10	0.00	8.10
Gwalior-Agra (D/C)	1821	1615	2040	0	39.00	0.00	39.00
Zerda-Kankroli	84	-35	98	84	0.35	0.00	0.35
Zerda-Bhinmal	111	42	228	54	2.05	0.00	2.05
Malanpur-Auraiya	-118	-89	0	122	0.00	2.27	-2.27
Badod-Kota/Morak	23	13	96	0	0.74	0.00	0.74
Mundra-Mohindergarh(HVDC)	1798	2198	2216	0	48.39	0.00	48.39
Vindhychal - Rihand	338	332	342	0	8.11	0.00	8.11
Sub Total WR	4107	4476			106.74	2.27	104.48
Pusauli Bypass	-322	-130	0	397	0.00	4.95	-4.95
MZP- GKP (D/C)	400	750	830	0	14.08	0.00	14.08
Patna-Balia(D/C)	101	369	381	0	6.47	0.00	6.47
B'Sharif-Balia (D/C)	152	343	416	0	6.70	0.00	6.70
Pusauli-Balia	12	17	34	0	0.44	0.00	0.44
Gaya-Fatehpur (765 Kv)	-72	58	120	75	0.73	0.00	0.73
Pusauli-Sahupuri	157	159	215	0	3.51	0.00	3.51
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-43	-42	0	45	0.00	0.86	-0.86
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	236	358	386	0	7.60	0.00	7.60
Sub Total ER	621	1882			39.53	5.82	33.71
Total IR Exch	4728	6358			146.27	8.08	138.19

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
29.89	3.84	33.72	13.27	-0.04	-3.90	15.40	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
43.09	83.24	126.33	33.71	104.48	138.19	-9.38	21.24	11.86

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	3.00	17.64	39.80	74.70	47.56	8.58	3.26	0.88	NA

<----- 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					
50.31	17.03	49.61	4.50	49.92	0.20	0.12	50.27	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	412	17:55	402	15:11	0.0	0.0	0.0	0.0
Gorakhpur	400	0	0:00	9999	0:00	0.0	0.0	0.0	0.0
Bareilly	400	424	18:05	398	1:43	0.0	0.0	1.7	0.0
Kanpur	400	422	18:02	399	22:19	0.0	0.0	1.0	0.0
Dadri	400	418	18:02	397	22:30	0.0	0.0	0.0	0.0
Ballabgarh	400	425	18:03	398	22:18	0.0	0.0	4.2	0.0
Bawana	400	420	18:00	399	22:17	0.0	0.0	0.0	0.0
Bassi	400	424	18:02	393	22:15	0.0	0.0	2.8	0.0
Hissar	400	412	18:00	390	22:13	0.0	0.0	0.0	0.0
Moga	400	413	6:02	396	22:15	0.0	0.0	0.0	0.0
Abdullapur	400	417	18:02	396	22:14	0.0	0.0	0.0	0.0
Nalagarh	400	416	18:00	404	22:14	0.0	0.0	0.0	0.0
Kishenpur	400	415	17:03	405	21:06	0.0	0.0	0.0	0.0
Wagoora	400	409	5:05	395	21:06	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	784	18:02	738	22:17	0.0	1.8	0.0	0.0
Balia	765	781	18:02	738	15:21	0.0	2.4	0.0	0.0
Moga	765	803	18:02	756	22:15	0.0	0.0	0.9	0.0
Agra	765	804	18:04	752	22:17	0.0	0.0	0.6	0.0
Bhiwani	765	804	18:03	759	22:15	0.0	0.0	1.3	0.0
Unnao	765	776	18:05	737	15:20	0.0	10.5	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 (m³/s)	Usage (m³/s)
Bhakra	513.59	445.62	509.83	1545.02	509.32	1515.08	915.94	904.92
Pong	426.72	384.05	416.20	718.14	421.90	975.89	316.75	234.92
Tehri	829.79	740.04	812.45	850.00	819.65	990.00	421.08	280.00
Koteshwar	612.50	598.50	61.94	4.95	609.90	4.44	280.00	281.00
Chamera-I	760.00	748.75	751.20	0.00	0.00	0.00	243.09	233.41
Rihand	268.22	252.98	855.50	347.00	851.00	271.50	0.00	0.00
RPS	352.80	343.81	1155.00	0.00	1155.61	3.37	0.00	0.00
Jawahar Sagar	298.70	295.78	0.00	0.00	1309.94	2.29	0.00	0.00
RSD	527.91	487.91	516.65	11.53	524.23	10.22	237.92	485.58

* 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	1428	0	0	1409	0	0	33.71	0.00	33.71
Delhi	320	92	-51	431	196	-51	9.52	-0.06	9.46
Haryana	1272	-380	0	1178	-97	0	27.59	-13.76	13.83
HP	-1222	-248	0	-968	-348	0	-24.93	-6.41	-31.35
J&K	-683	-131	0	-438	-29	0	-11.78	-1.93	-13.71
CHD	0	0	0	0	0	0	0.24	0.02	0.26
Rajasthan	-791	398	0	-530	953	0	-14.02	28.32	14.29
UP	846	638	49	178	0	49	8.33	9.59	17.92
Uttarakhand	89	-5	0	89	-5	0	2.15	-0.12	2.02
Total	1260	365	-2	1350	670	-2	30.80	15.65	46.44

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	1440	1369	0	0	0	0
Delhi	480	296	613	-671	-51	-51
Haryana	1425	569	-97	-1263	0	0
HP	-943	-1222	-177	-393	0	0
J&K	-378	-734	-29	-207	0	0
CHD	29	0	20	0	0	0
Rajasthan	75	-865	1670	63	0	0
UP	846	137	737	0	49	49
Uttarakhand	89	89	-5	-5	0	0

XI. System Constraints:**XII. Grid Disturbance / Any Other Significant Event:****XIII. Weather Conditions For 24.08.2014 :**

1. Normal weather in NR.

XIV. Synchronisation of new generating units :
0.00**XV. Synchronisation of new 220 / 400 / 765 KV lines and energising of bus //substation :**
1.1000 MVA Anapara D ICT ideally charged at 21.19 hrs on 22.08.14**XVI. Tripping of lines in pooling stations :****XVII. Complete generation loss in a generating station :**