

पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिड की पूर्ण स्वामित्व प्राप्त महायक कंपनी)



उत्तरी क्षेत्रीय भार प्रेषण केंद्र

CIN: U40105DL2009GOI188682

Power Supply Position in Northern Region for 14.02.2015
Date of Reporting : 15.02.2015

I. Regional Availability/Demand:

Evening Peak (19:00 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
37758	1688	39446	50.04	30501	1179	31680	50.09	819.9	49.36

* 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	47.15	11.49		58.63	43.88	43.70	-0.18	102.33	0.00
Haryana	60.56	0.25		60.81	57.00	56.25	-0.75	117.05	0.11
Rajasthan	131.34	5.33	10.98	147.65	63.64	65.72	2.08	213.38	0.00
Delhi	17.30			17.30	40.79	40.71	-0.08	58.01	0.02
UP	129.40	2.40		131.80	93.75	93.82	0.07	225.62	40.59
Uttarakhand		9.63		9.63	23.90	24.70	0.80	34.33	1.35
HP		4.37		4.37	20.10	20.00	-0.11	24.36	0.00
J & K		4.60	0.00	4.60	35.06	36.69	1.63	41.30	7.29
Chandigarh				0.00	3.46	3.48	0.27	3.48	0.00
Total	385.74	38.06	10.98	434.79	381.58	385.07	3.74	819.86	49.36

* 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 (19:00 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	5178	0	-249	-244	3456	0	-42	-235	5477
Haryana	5798	0	-182	-628	3855	0	-29	-840	6195
Rajasthan	8947	0	-131	531	8351	0	120	819	9652
Delhi	2767	0	-40	-384	1467	0	-43	-814	3399
UP	10142	1285	8	73	9750	895	205	68	10142
Uttarakhand	1779	75	72	549	1160	0	27	371	1847
HP	1104	0	-88	337	762	0	36	357	1352
J&K	1859	328	181	663	1607	284	32	647	1937
Chandigarh	184	0	-20	0	93	0	-1	-31	206
Total	37758	1688	-448	897	30501	1179	306	342	37933

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

Diversity is 1.06

III. Regional Entities :

Entity	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
A. NTPC	Singrauli STPS (5*200+2*500)	2000	1729	2062	1548	41.79	1741	41.07	0.72
	Rihand I STPS (2*500)	1000	865	930	880	21.89	912	20.16	1.73
	Rihand II STPS (2*500)	1000	898	916	974	21.77	907	20.19	1.58
	Rihand III STPS (2*500)	1000	969	1003	922	22.48	937	21.20	1.28
	Dadri I STPS (4*210)	840	815	694	590	15.28	637	14.36	0.92
	Dadri II STPS (2*490)	980	980	823	695	18.81	784	18.29	0.52
	Unchahar I TPS (2*210)	420	405	384	303	9.03	376	8.72	0.31
	Unchahar II TPS (2*210)	420	403	386	293	8.51	355	8.17	0.34
	Unchahar III TPS (1*220)	210	201	205	139	4.31	180	4.13	0.19
	ISTPP (Jhajhar) (3*500)	1500	1500	716	643	16.57	691	17.65	-1.08
	Dadri GPS (4*130.19+2*154.51)	830	844	187	348	6.74	281	6.80	-0.06
	Anta GPS (3*88.71+1*153.2)	419	426	225	239	5.85	244	5.79	0.06
	Auraiya GPS (4*111.19+2*109.30)	663	510	162	168	3.93	164	3.93	0.00
	Dadri Solar	5	1	0	0	0.02	1	0.03	-0.01
	Unchahar Solar	10	3	0	0	0.04	2	0.07	-0.03
	Singrauli Solar	15	2	0	0	0.05	2	0	0.01
	Sub Total (A)	11312	10551	8693	7742	197	8212	191	6
B. NPC	NAPS (2*220)	440	395	426	432	9.44	394	9.48	-0.04
	RAPS- B (2*220)	440	413	451	456	9.83	410	9.91	-0.08
	RAPS- C (2*220)	440	220	230	233	4.89	204	5.28	-0.39
	Sub Total (B)	1320	1028	1107	1121	24.17	1007	24.67	-0.51
C. NHPC	Chamera I HPS (3*180)	540	534	393	0	1.72	72	1.60	0.12
	Chamera II HPS (3*100)	300	200	210	0	0.98	41	0.90	0.08
	Chamera III HPS (3*77)	231	231	226	0	0.71	29	0.62	0.09
	Bairasuli HPS(3*60)	180	179	180	0	0.97	40	0.90	0.07
	Salal-HPS (6*115)	690	98	240	0	2.51	105	2.34	0.17
	Tanakpur-HPS (3*40)	94	21	20	24	0.55	23	0.51	0.04
	Uri-I HPS (4*120)	480	141	219	87	3.56	148	3.30	0.26
	Uri-II HPS (4*60)	240	0	0	0	0.00	0	0.00	0.00
	Dhauliganga-HPS (4*70)	280	140	140	0	0.90	38	0.85	0.05
	Dulhasti-HPS (3*130)	390	258	273	0	3.11	130	3.00	0.11
	Sewa-II HPS (3*40)	120	117	130	0	1.20	50	1.15	0.05
	Parbati 3 (4*130)	520	390	131	0	0.35	15	0.33	0.03
	Sub Total (C)	4065	2308	2162	111	17	690	16	1
D. SJVNL	NJPC (6*250)	1500	1605	1566	0	5.88	245	5.79	0.09
	Rampur HEP (4*68.67)	275	370	363	0	1.50	63	1.56	-0.05
	Sub Total (D)	1775	1975	1919	0	7.38	308	7.35	0.03
E. THDC	Tehri HPS (4*250)	1000	884	884	0	7.40	308	7.30	0.10
	Koteshwar HPS (4*100)	400	129	303	96	3.16	131	3.10	0.06
	Sub Total (E)	1400	1013	1187	96	10.55	440	10.40	0.15
F. BBMB	Bhakra HPS (3*108+2*126+6*157)	1514	781	1155	496	18.67	778	18.74	-0.07
	Dehar HPS (6*165)	990	139	330	0	3.40	142	3.33	0.07
	Pong HPS (6*66)	396	171	354	0	3.92	163	4.10	-0.18
	Sub Total (F)	2900	1090	1839	496	25.98	1083	26.16	-0.18
G. IPP(s)/JV(s)	ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	0	0	0.29	12	0.28	0.01
	KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	0	0	3.17	132	3.13	0.04
	Malana Stg-II HPS (2*50)	100	0	0	0	0.00	0	0.00	0.00
	Shree Cement TPS (2*150)	300	0	133	111	3.08	128	3.10	-0.02
	Budhil HPS(IPP)	70	0	0	0	0.14	6	0.15	0.00
Sub Total (G)	1662	0	133	111	6.68	278	6.65	0.03	
H. Total Regional Entities (A-G)	24434	17966	17041	9677	288.41	12017	281.33	7.08	

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) (6*210)	1260	480	480	12.27	511
	Guru Nanak Dev TPS(Bhatinda) (4*110)	440	120	100	2.36	98
	Guru Hargobind Singh TPS(L.mbt) (2*210+2*250)	920	619	506	14.22	593
	Goindwal(GVK)		0	0	0.00	0
	Rajpura (2*700)	1400	606	350	11.07	461
	Talwandi Saboo (1*660)	660	320	356	7.23	301
	Thermal (Total)	4680	2145	1792	47.15	1964
	Total Hydro	1148	498	460	11.49	479
Total Punjab	5828	2643	2252	58.63	2443	
Haryana	Panipat TPS (4*110+2*210+2*250)	1367	456	444	10.66	444
	DCRTPP (Yamuna nagar) (2*300)	600	545	485	11.95	498
	Faridabad GPS (NTPC)	432	186	179	4.49	187
	RGTPP (khedar) (IPP) (2*600)	1200	1156	739	21.34	889
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP) (2*660)	1320	558	375	12.12	505
	Thermal (Total)	4944	2901	2222	60.56	2523
	Total Hydro	62	8	10	0.25	10
	Total Haryana	5006	2909	2232	60.81	2534
	Rajasthan	kota TPS (2*110+2*195+3*210)	1240	1092	1051	26.03
suratgarh TPS (6*250)		1500	1199	1128	29.94	1247
Chabra TPS (3*250)		750	598	521	13.55	564
Dholpur GPS (3*110)		330	113	110	2.81	117
Ramgarh GPS (1*3 + 1*35.5 +2*37.5 +1*110 +1*50)		271	151	156	4.16	173
RAPS A (NPC) (1*100+1*200)		300	163	165	4.07	170
Barsingsar (NLC) (2*125)		250	96	96	2.16	90
Giral LTPS (2*125)		250	84	100	1.94	81
Rajwest LTPS (IPP) (8*135)		1080	959	505	20.51	854
VS LIGNITE LTPS (IPP) (1*135)		135	0	0	0.00	0
Kalisindh Thermal(1*600)		600	0	0	0.00	0
Kawai(Adani) (2*660)		1320	1205	887	26.19	1091
Thermal (Total)		8026	5660	4719	131	5473
Total Hydro		550	217	173	5.33	222
Wind power		2798	102	1298	10.21	426
Biomass		99	19	19	0.44	19
Solar		730	3	0	0.33	14
Renewable/Others (Total)		3627	124	1317	10.98	458
Total Rajasthan	12203	6001	6209	147.65	6152	
UP	Anpara TPS (3*210+2*500)	1630	1338	915	25.40	1058
	Obra TPS (2*50+2*94+5*200)	1194	344	351	8.40	350
	Paricha TPS (2*110+2*220+2*250)	1140	636	643	15.40	642
	Panki TPS (2*105)	210	131	131	3.20	133
	Harduaganj TPS (1*60+1*105+2*250)	665	438	449	10.70	446
	Tanda TPS (NTPC) (4*110)	440	387	381	9.30	388
	Roza TPS (IPP) (4*300)	1200	576	801	17.20	717
	Anpara-C (IPP) (2*600)	1200	548	545	13.10	546
	Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)	450	311	401	7.50	313
	Thermal (Total)	8129	4709	4617	110.20	4592
	Vishnuparyag HPS (IPP)	400	68	68	1.60	67
	Other Hydro	527	20	20	0.80	33
	Cogeneration	981	800	800	19.20	800
	Total UP	10037	5597	5505	131.80	5425
Uttarakhand	Total Hydro	1398	575	335	9.63	401
	Total Uttarakhand	1398	575	335	9.63	401
Delhi	Raighat TPS (2*67.5)	135	32	35	0.74	31
	Delhi Gas Turbine (6x30 + 3x34)	282	76	79	1.81	75
	Pragati Gas Turbine (2x104+ 1x122)	330	159	162	3.78	157
	Rithala GPS (3*36)	95	0	0	0.00	0
	Bawana GPS (6*250)	1370	304	272	7.07	295
	Badarpur TPS (NTPC) (3*95+2*210)	705	198	157	3.90	163
	Thermal (Total)	2917	769	705	17.30	721
Total Delhi	2917	769	705	17.30	721	
HP	Baspa HPS (IPP) (2*150)	300	28	0	0.87	36
	Malana HPS (IPP) (2*43)	86	0	0	0.20	9
	Other Hydro	728	160	96	3.29	137
	Total HP	1114	188	96	4.37	182
J & K	Baqilhar HPS (IPP) (3*150)	450	150	120	3.21	134
	Other Hydro/IPP	436	120	41	1.39	58
	Gas/Diesel/Others	209	0	0	0.00	0
	Total J & K	1094	270	161	4.60	192
Total State Control Area Generation		39597	18952	17495	434.79	18050
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			5238	4712	122.74	5114
Total Regional Availability(Gross)		64032	41231	31884	845.93	35180

IV. Total Hydro Generation:

Regional Entities Hydro	11432	7107	703	63.94	2664
State Control Area Hydro	5684	1776	1255	38.06	1519
Total Regional Hydro	17116	8883	1958	102.01	4184

V(A). Inter Regional Exchange [Import (+ve)/Export (-ve)] [Linkwise]

Element	Peak(19:00 Hrs)	Off Peak(03:00 Hrs)	Maximum Interchange (MW)		Energy (MU)		Net Energy MU
	MW	MW	Import	Export	Import	Export	
Vindhychal B/B	-100	-200	0	450	0.00	5.59	-5.59
Gwalior-Agra (D/C)	1571	1851	2271	0	42.81	0.00	42.81
Zerda-Kankroli	-151	-378	0	393	0.00	5.34	-5.34
Zerda-Bhinmal	-62	-311	58	347	0.00	3.23	-3.23
Malanpur-Auraiya	-85	-94	0	118	0.00	2.16	-2.16
Badod-Kota/Morak	-98	-156	0	80	0.00	2.74	-2.74
Mundra-Mohindergarh(HVDC)	2497	2497	2519	0	56.78	0.00	56.78
Vindhychal - Rihand	490	397	501	0	11.20	0.00	11.20
Sub Total WR	4062	3606			110.79	19.05	91.73
Pusauli Bypass	400	400	400	0	8.84	0.00	8.84
MZP- GKP (D/C)	110	4	186	235	0.00	0.00	0.00
Patna-Balia(D/C)	521	532	828	0	14.47	0.00	14.47
B'Sharif-Balia (D/C)	-110	-78	216	247	0.00	1.33	-1.33
Pusauli-Balia	45	86	169	40	0.67	0.00	0.67
Gaya-Fatehpur (765 Kv)	230	174	426	0	6.96	0.00	6.96
Pusauli-Sahupuri	105	136	171	0	2.84	0.00	2.84
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-40	-33	0	50	0.00	0.92	-0.92
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	-85	-115	104	143	0.00	0.53	-0.53
Sub Total ER	1176	1106			33.79	2.78	31.01
Total IR Exch	5238	4712			144.57	21.83	122.74

V(B). Inter Regional Schedule & Actual Exchanges [Import (+ve)/Export (-ve)] [Corridor wise]

ER	ISGS/LT Schedule (MU)		Bilateral Schedule (MU)		Power Exchange Shdl (MU)		Wheeling (MU)	
	Bhutan	Total	Through ER	Through WR	Through ER	Through WR	Through ER	Through WR
23.82	0.06	23.88	5.53	-0.74	17.08	0.00	0.22	-0.22

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
46.71	73.20	119.90	31.01	91.73	122.74	-15.70	18.53	2.84

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	0.24	7.62	26.28	68.44	60.34	9.09	3.81	0.52	NA

Frequency (Hz)				Average Frequency (Hz)	Frequency Variation Index	Std. Dev. (Hz)	Frequency in 15 Min Block	
Maximum		Minimum					MAX	MIN
Freq	Time	Freq	Time					
50.33	18.04	49.61	22.05	49.95	0.11	0.10	50.24	49.85

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	409	00:00	402	18:15	0.0	0.0	0.0	0.0
Gorakhpur	400	0	00:00	9999	00:00	0.0	0.0	0.0	0.0
Bareilly	400	422	21:27	396	15:43	0.0	0.0	2.5	0.0
Kanpur	400	418	21:25	400	15:40	0.0	0.0	0.0	0.0
Dadri	400	0	00:00	9999	00:00	100.0	100.0	0.0	0.0
Ballabgarh	400	426	21:25	403	15:44	0.0	0.0	14.3	0.0
Bawana	400	425	21:28	404	15:41	0.0	0.0	7.1	0.0
Bassi	400	424	20:55	398	11:42	0.0	0.0	6.9	0.0
Hissar	400	415	20:57	391	14:36	0.0	0.0	0.0	0.0
Moga	400	421	21:28	398	12:15	0.0	0.0	0.3	0.0
Abdullapur	400	424	21:34	396	14:38	0.0	0.0	3.4	0.0
Nalagarh	400	431	21:26	404	12:15	0.0	0.0	11.3	0.7
Kishenpur	400	424	13:00	396	18:56	0.0	0.0	1.3	0.0
Wagoora	400	418	13:02	369	18:54	14.3	56.7	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	780	03:03	739	15:43	0.0	0.7	0.0	0.0
Balia	765	780	21:41	749	09:13	0.0	0.0	0.0	0.0
Moga	765	798	21:23	757	12:15	0.0	0.0	0.0	0.0
Agra	765	792	18:03	748	15:42	0.0	0.0	0.0	0.0
Bhiwani	765	805	21:41	761	15:44	0.0	0.0	2.4	0.0
Unnao	765	770	21:41	736	15:41	0.0	2.9	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	487.15	644.48	493.21	838.00	116.10	625.01
Pong	426.72	384.05	399.70	209.93	407.02	397.88	51.73	281.92
Tehri	829.79	740.04	791.35	470.00	796.30	547.00	35.85	189.00
Koteshwar	612.50	598.50	610.25	4.69	610.54	4.69	189.00	209.00
Chamera-I	760.00	748.75	759.89	0.00	0.00	0.00	51.48	46.21
Rihand	268.22	252.98	848.70	234.80	852.10	289.60	0.00	0.00
RPS	352.80	343.81	1138.52	0.00	0.00	0.00	0.00	0.00
Jawahar Sagar	298.70	295.78	0.00	0.00	0.00	0.00	0.00	0.00
RSD	527.91	487.91	501.35	2.88	508.59	1.92	1176.00	4276.00

* NA: Not Available

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

State	Off- Peak Hours (03:00 Hrs)			Peak Hours (19:00 Hrs)			Day Energy (MU)		
	Bilateral (MW)	IEX (MW)	PXIL (MW)	Bilateral (MW)	IEX (MW)	PXIL (MW)	Bilateral (MU)	IEX / PXIL (MU)	Total (MU)
Punjab	-321	86	0	-290	47	0	-7.22	3.54	-3.67
Delhi	-687	-102	-25	-475	97	-6	-11.25	-0.24	-11.49
Haryana	-599	-242	0	-595	-33	0	-15.54	0.46	-15.09
HP	413	-55	0	383	-46	0	11.22	-2.34	8.88
J&K	647	0	0	468	196	0	13.13	1.97	15.10
CHD	-31	0	0	0	0	0	-0.24	0.09	-0.15
Rajasthan	293	524	2	371	158	2	7.82	9.56	17.38
UP	68	0	0	73	0	0	0.26	0.00	0.26
Uttarakhand	268	81	22	268	278	3	6.34	5.74	12.08
Total	52	292	-1	202	696	-1	4.51	18.79	23.30

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	-290	-321	326	2	0	0
Delhi	-244	-687	255	-112	-3	-66
Haryana	-595	-766	163	-345	0	0
HP	541	383	16	-573	0	0
J&K	647	468	269	-127	0	0
CHD	0	-31	20	0	0	0
Rajasthan	371	293	526	-140	2	-51
UP	105	-114	0	0	0	0
Uttarakhand	268	252	347	59	73	0

XI. System Constraints:**XII. Grid Disturbance / Any Other Significant Event:****XIII. Weather Conditions For 14.02.2015 :**
Normal**XIV. Synchronisation of new generating units :****XV. Synchronisation of new 220 / 400 / 765 KV lines and energising of bus / /substation :**
1. 400 kV Anta-Kalisindh-II first time synchronized at 1420 Hrs on 13.02.15.**XVI. Tripping of lines in pooling stations :****XVII. Complete generation loss in a generating station :**