

पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिस्ट की पूर्ण स्वामित्व प्राप्त महायुक्त कंपनी)



उत्तरी क्षेत्रीय भार प्रेषण केंद्र

CIN: U40105DL2009GOI188682

Power Supply Position in Northern Region for 09.02.2015
Date of Reporting : 10.02.2015

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
36891	2188	39079	50.10	28425	767	29192	50.14	789.8	50.43

* 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	37.13	8.89		46.02	40.15	41.21	1.07	87.23	0.00
Haryana	60.71	0.38		61.09	48.87	48.03	-0.84	109.12	0.00
Rajasthan	120.93	4.45	16.78	142.16	59.99	62.44	2.45	204.60	0.00
Delhi	17.42			17.42	43.71	43.02	-0.69	60.44	0.03
UP	128.06	1.36		129.42	92.59	94.83	2.24	224.25	42.14
Uttarakhand		8.56		8.56	23.55	25.76	2.21	34.32	0.85
HP		4.41		4.41	19.95	20.05	0.10	24.46	0.02
J & K		4.45	0.00	4.45	36.46	37.39	0.94	41.85	7.38
Chandigarh				0.00	3.75	3.58	0.27	3.58	0.00
Total	364.26	32.50	16.78	413.53	369.02	376.32	7.74	789.85	50.43

† 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	4545	0	112	-253	2702	0	13	-256	4569
Haryana	5637	0	-77	-716	2855	0	30	-711	5852
Rajasthan	9078	0	-23	357	7847	0	203	987	9440
Delhi	2826	0	-151	-131	1479	0	60	-818	3475
UP	9736	1710	211	99	9943	475	259	47	10202
Uttarakhand	1783	140	67	512	1140	0	46	345	1851
HP	1185	0	59	248	710	0	5	357	1341
J&K	1913	338	113	688	1657	292	57	647	1945
Chandigarh	189	0	-7	0	91	0	-3	-31	206
Total	36891	2188	303	804	28425	767	670	569	37035

* 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	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	1561	1549	2020	39.88	1662	37.26	2.63
	Rihand I STPS (2*500)	1000	931	1004	852	23.20	967	21.51	1.69
	Rihand II STPS (2*500)	1000	900	956	670	21.28	887	20.06	1.22
	Rihand III STPS (2*500)	1000	968	1002	720	22.31	930	21.39	0.92
	Dadri I STPS (4*210)	840	815	661	604	15.23	634	14.29	0.94
	Dadri II STPS (2*490)	980	980	808	690	18.66	778	18.33	0.33
	Unchahar I TPS (2*210)	420	405	426	282	8.74	364	8.99	-0.25
	Unchahar II TPS (2*210)	420	402	439	275	8.58	358	8.46	0.12
	Unchahar III TPS (1*220)	210	201	218	133	4.28	178	4.23	0.05
	ISTPP (Jhajhar) (3*500)	1500	1500	958	583	16.40	683	17.85	-1.45
	Dadri GPS (4*130.19+2*154.51)	830	847	405	395	9.57	399	9.64	-0.07
	Anta GPS (3*88.71+1*1153.2)	419	426	244	246	6.16	257	6.24	-0.08
	Auraiya GPS (4*111.19+2*109.30)	663	510	164	168	3.99	166	3.99	0.00
	Dadri Solar	5	1	0	0	0.03	1	0.03	0.00
	Unchahar Solar	10	3	0	0	0.03	1	0.07	-0.04
	Singrauli Solar	15	2	0	0	0.00	0	0	-0.04
Sub Total (A)	11312	10450	8834	7638	198	8264	192	6	
B. NPC	NAPS (2*220)	440	396	428	441	9.44	393	9.50	-0.06
	RAPS- B (2*220)	440	412	454	458	9.89	412	9.89	0.01
	RAPS- C (2*220)	440	214	233	235	4.94	206	5.14	-0.20
	Sub Total (B)	1320	1022	1115	1134	24.27	1011	24.53	-0.26
C. NHPC	Chamera I HPS (3*180)	540	534	135	0	1.68	70	1.60	0.08
	Chamera II HPS (3*100)	300	200	205	0	1.34	56	1.30	0.04
	Chamera III HPS (3*77)	231	231	18	0	0.61	25	0.47	0.13
	Bairasuli HPS(3*60)	180	179	179	0	0.61	26	0.58	0.03
	Salal-HPS (6*115)	690	96	247	125	2.41	101	2.30	0.12
	Tanakpur-HPS (3*40)	94	23	19	29	0.58	24	0.55	0.02
	Uri-I HPS (4*120)	480	156	226	109	4.12	172	3.74	0.38
	Uri-II HPS (4*60)	240	0	0	0	0.00	0	0.00	0.00
	Dhauliganga-HPS (4*70)	280	140	140	0	0.88	36	0.80	0.08
	Dulhasti-HPS (3*130)	390	386	399	0	2.83	118	2.70	0.13
	Sewa-II HPS (3*40)	120	119	121	0	0.76	32	0.75	0.01
	Parbati 3 (4*130)	520	130	0	0	0.27	11	0.26	0.01
	Sub Total (C)	4065	2193	1689	263	16	671	15	1
	D. SJVNL	NJPC (6*250)	1500	1605	1585	0	5.62	234	5.46
Rampur HEP (4*68.67)		275	370	373	0	1.56	65	1.50	0.07
Sub Total (D)		1775	1975	1958	0	7.18	299	6.95	0.23
E. THDC	Tehri HPS (4*250)	1000	908	908	0	7.47	311	7.40	0.07
	Koteshwar HPS (4*100)	400	117	301	90	2.83	118	2.80	0.03
	Sub Total (E)	1400	1025	1209	90	10.30	429	10.20	0.10
F. BBMB	Bhakra HPS (3*108+2*126+6*157)	1514	697	1165	429	16.70	696	16.72	-0.03
	Dehar HPS (6*165)	990	145	330	0	3.41	142	3.49	-0.08
	Pong HPS (6*66)	396	132	300	0	3.12	130	3.17	-0.05
	Sub Total (F)	2900	974	1795	429	23.22	968	23.38	-0.16
G. IPP(s)/JV(s)	ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	0	0	0.36	15	0.35	0.01
	KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	0	0	3.03	126	3.00	0.03
	Malana Stg-II HPS (2*50)	100	0	0	0	0.00	0	0.00	0.00
	Shree Cement TPS (2*150)	300	0	143	75	2.87	120	2.91	-0.04
	Budhil HPS(IPP)	70	0	0	0	0.15	6	0.15	0.00
	Sub Total (G)	1662	0	143	75	6.40	267	6.40	0.00
H. Total Regional Entities (A-G)	24434	17639	16742	9628	285.82	11909	278.90	6.92	

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	420	480	9.63	401
	Guru Nanak Dev TPS(Bhatinda) (4*110)	440	120	100	2.45	102
	Guru Hargobind Singh TPS(L.mbt) (2*210+2*250)	920	712	507	14.17	590
	Goindwal(GVK)		0	0	0.00	0
	Rajpura (2*700)	1400	597	358	10.88	453
	Talwandi Saboo (1*660)	660	0	0	0.00	0
	Thermal (Total)	4680	1849	1445	37.13	1547
	Total Hydro	1148	311	235	8.89	371
	Total Punjab	5828	2160	1680	46.02	1918
	Haryana	Panipat TPS (4*110+2*210+2*250)	1367	469	445	10.71
DCRTPP (Yamuna nagar) (2*300)		600	536	483	12.16	507
Faridabad GPS (NTPC)		432	203	194	4.62	192
RGTPP (khedar) (IPP) (2*600)		1200	1163	718	20.64	860
Magnum Diesel (IPP)		25	0	0	0.00	0
Jhajjar(CLP) (2*660)		1320	596	380	12.58	524
Thermal (Total)		4944	2967	2220	60.71	2530
Total Hydro		62	8	9	0.38	16
Total Haryana		5006	2975	2229	61.09	2545
Rajasthan		kota TPS (2*110+2*195+3*210)	1240	898	859	21.45
	suratgarh TPS (6*250)	1500	1039	1138	25.42	1059
	Chabra TPS (3*250)	750	823	745	18.58	774
	Dholpur GPS (3*110)	330	0	0	0.00	0
	Ramgarh GPS (1*3 + 1*35.5 +2*37.5 +1*110 +1*50)	271	128	150	3.55	148
	RAPS A (NPC) (1*100+1*200)	300	162	164	4.02	168
	Barsingar (NLC) (2*125)	250	184	164	4.15	173
	Giral LTPS (2*125)	250	0	0	0.00	0
	Rajwest LTPS (IPP) (8*135)	1080	963	507	18.34	764
	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	1210	915	25.43	1060
	Thermal (Total)	8026	5407	4642	121	5039
	Total Hydro	550	255	179	4.45	185
	Wind power	2798	300	927	16.30	679
	Biomass	99	14	14	0.33	14
	Solar	730	0	0	0.15	6
	Renewable/Others (Total)	3627	314	941	16.78	699
	Total Rajasthan	12203	5976	5762	142.16	5923
UP	Anpara TPS (3*210+2*500)	1630	1237	1238	29.32	1222
	Obra TPS (2*50+2*94+5*200)	1194	346	338	8.12	338
	Paricha TPS (2*110+2*220+2*250)	1140	626	569	14.82	617
	Panki TPS (2*105)	210	130	135	3.19	133
	Harduaganj TPS (1*60+1*105+2*250)	665	232	230	5.48	228
	Tanda TPS (NTPC) (4*110)	440	387	383	9.55	398
	Roza TPS (IPP) (4*300)	1200	575	774	17.97	749
	Anpara-C (IPP) (2*600)	1200	542	542	13.04	543
	Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)	450	280	279	7.38	308
	Thermal (Total)	8129	4355	4488	108.86	4536
	Vishnuparyag HPS (IPP)	400	75	59	0.00	0
	Other Hydro	527	39	20	1.36	57
	Cogeneration	981	800	800	19.20	800
	Total UP	10037	5269	5367	129.42	5393
	Uttarakhand	Total Hydro	1398	522	284	8.56
Total Uttarakhand		1398	522	284	8.56	357
Delhi	Raighat TPS (2*67.5)	135	33	34	0.75	31
	Delhi Gas Turbine (6x30 + 3x34)	282	76	78	1.83	76
	Pragati Gas Turbine (2x104+ 1x122)	330	158	132	3.86	161
	Rithala GPS (3*36)	95	0	0	0.00	0
	Bawana GPS (6*250)	1370	302	270	7.13	297
	Badarpur TPS (NTPC) (3*95+2*210)	705	167	157	3.86	161
	Thermal (Total)	2917	736	671	17.42	726
	Total Delhi	2917	736	671	17.42	726
HP	Baspa HPS (IPP) (2*150)	300	59	0	0.89	37
	Malana HPS (IPP) (2*43)	86	0	0	0.21	9
	Other Hydro	728	154	108	3.31	138
	Total HP	1114	213	108	4.41	184
J & K	Baqilhar HPS (IPP) (3*150)	450	150	120	3.09	129
	Other Hydro/IPP	436	91	40	1.36	57
	Gas/Diesel/Others	209	0	0	0.00	0
	Total J & K	1094	241	160	4.45	186
Total State Control Area Generation		39597	18092	16261	413.53	17230
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			2873	2770	109.22	4551
Total Regional Availability(Gross)		64032	37707	28659	808.57	33690

IV. Total Hydro Generation:

Regional Entities Hydro	11432	6651	782	60.19	2508
State Control Area Hydro	5684	1589	995	32.50	1354
Total Regional Hydro	17116	8240	1777	92.68	3862

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	-150	-250	200	300	0.14	5.23	-5.09
Gwalior-Agra (D/C)	908	1061	2008	0	35.44	0.00	35.44
Zerda-Kankroli	-253	-305	0	323	0.00	4.30	-4.30
Zerda-Bhinmal	-169	-225	75	274	0.00	2.45	-2.45
Malanpur-Auraiya	-103	-81	0	103	0.00	1.49	-1.49
Badod-Kota/Morak	-97	-164	0	167	0.00	2.88	-2.88
Mundra-Mohindergarh(HVDC)	2302	2298	2304	0	55.60	0.00	55.60
Vindhychal - Rihand	493	289	495	0	10.81	0.00	10.81
Sub Total WR	2931	2623			101.98	16.34	85.64
Pusauli Bypass	200	400	400	0	7.07	0.00	7.07
MZP- GKP (D/C)	-137	-48	108	-162	0.00	1.40	-1.40
Patna-Balia(D/C)	-515	-413	652	0	12.71	0.00	12.71
B'Sharif-Balia (D/C)	125	168	0	224	0.00	2.32	-2.32
Pusauli-Balia	-9	15	117	38	0.37	0.00	0.37
Gaya-Fatehpur (765 Kv)	204	103	353	0	5.43	0.00	5.43
Pusauli-Sahupuri	201	130	201	0	3.55	0.00	3.55
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-49	-38	0	49	0.00	0.92	-0.92
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	-78	-170	140	175	0.00	0.92	-0.92
Sub Total ER	-58	147			29.13	5.56	23.57
Total IR Exch	2873	2770			131.11	21.90	109.22

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
22.34	0.22	22.56	5.26	-1.30	9.22	7.24	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
37.26	72.44	109.70	23.57	85.64	109.22	-13.69	13.21	-0.48

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	1.55	16.34	46.99	57.04	20.02	6.37	0.31	NA

Frequency (Hz)				Average Frequency	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX	MIN
Freq	Time	Freq	Time	Hz	(Hz)	(Hz)		
50.25	21.59	49.71	10.07	49.99	0.07	0.08	50.18	49.9

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	00:00	402	09:33	0.0	0.0	0.0	0.0
Gorakhpur	400	412	05:02	396	09:35	0.0	0.0	0.0	0.0
Bareilly	400	422	00:00	398	14:48	0.0	0.0	1.7	0.0
Kanpur	400	421	03:00	402	09:26	0.0	0.0	0.5	0.0
Dadri	400	417	23:24	399	14:46	53.5	53.5	0.0	0.0
Ballabgarh	400	428	02:55	403	14:46	0.0	0.0	36.2	0.0
Bawana	400	428	03:01	403	14:45	0.0	0.0	35.2	0.0
Bassi	400	423	05:03	395	08:47	0.0	0.0	4.5	0.0
Hissar	400	418	03:00	393	14:48	0.0	0.0	0.0	0.0
Moga	400	423	02:19	401	12:10	0.0	0.0	14.7	0.0
Abdullapur	400	424	03:00	396	14:46	0.0	0.0	22.5	0.0
Nalagarh	400	434	03:00	410	14:38	0.0	0.0	45.7	17.6
Kishenpur	400	224	00:00	208	19:31	100.0	100.0	0.0	0.0
Wagoora	400	410	10:48	365	19:35	23.0	64.7	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	782	03:00	741	09:27	0.0	0.3	0.0	0.0
Balia	765	781	05:02	750	10:13	0.0	0.0	0.0	0.0
Moga	765	803	03:00	759	14:46	0.0	0.0	2.5	0.0
Agra	765	794	03:01	746	09:41	0.0	0.0	0.0	0.0
Bhiwani	765	807	03:00	760	14:46	0.0	0.0	18.9	0.0
Unnao	765	772	04:02	739	14:47	0.0	5.2	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	489.13	709.72	494.32	880.64	98.34	546.06
Pong	426.72	384.05	400.27	223.85	407.40	416.46	48.05	224.33
Tehri	829.79	740.04	793.75	500.05	798.25	583.00	35.97	189.00
Koteshwar	612.50	598.50	610.55	4.95	610.31	4.69	191.00	188.00
Chamera-I	760.00	748.75	759.60	0.00	0.00	0.00	53.15	45.23
Rihand	268.22	252.98	0.00	0.00	0.00	0.00	0.00	0.00
RPS	352.80	343.81	0.00	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	502.29	1.91	508.78	1.83	67.96	49.59

* 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	65	0	-290	38	0	-7.22	1.10	-6.12
Delhi	-687	-111	-20	-475	354	-10	-10.59	4.36	-6.23
Haryana	-827	116	0	-824	108	0	-21.04	0.68	-20.36
HP	413	-55	0	383	-135	0	11.22	-2.34	8.88
J&K	647	0	0	468	220	0	13.15	1.88	15.03
CHD	-31	0	0	0	0	0	-0.24	0.26	0.02
Rajasthan	489	496	2	489	-62	-70	11.74	6.91	18.65
UP	47	0	0	99	0	0	-0.03	0.00	-0.03
Uttarakhand	268	22	55	268	171	73	6.34	5.32	11.66
Total	-1	534	37	118	693	-7	3.33	18.17	21.50

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	-290	-321	175	0	0	0
Delhi	-120	-687	642	-115	-10	-20
Haryana	-824	-994	116	-191	0	0
HP	541	383	16	-530	0	0
J&K	647	468	269	-76	0	0
CHD	0	-31	44	0	0	0
Rajasthan	489	489	504	-576	2	-74
UP	131	-150	0	0	0	0
Uttarakhand	268	252	266	-5	73	0

XI. System Constraints:**XII. Grid Disturbance / Any Other Significant Event:****XIII. Weather Conditions For 09.02.2015 :**

Normal

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

- 400 kV Ratangarh - Sikar ckt II first time charged at 18:54 hrs from Ratangarh end and synchronised at 21:00 hrs from Sikar end on 09.02.2015.
- 400 kV Bus 1 and Bus 2 at Koldam first time charged at 15:51 hrs on 09.02.2015 through 400 kV Nalagarh - Koldam line.
- 400 kV Rajpura-Nakodar ckt I first time charged at 19:42 hrs on 09.02.2015.

XVI. Tripping of lines in pooling stations :**XVII. Complete generation loss in a generating station :**