

पावर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



उत्तरी क्षेत्रीय भार प्रेषण केंद्र

CIN: U40105DL2009GOI188682

Power Supply Position in Northern Region for 10.02.2015

Date of Reporting : 11.02.2015

I. Regional Availability/Demand:

Demand Met	Evening Peak (19:00 Hrs) MW			Off Peak (03:00 Hrs) MW			Day Energy (Net MU)		
	Shortage	Requirement	Freq* (Hz)	Demand Met	Shortage	Requirement	Freq* (Hz)	Demand Met	Shortage
37441	1803	39245	50.13	29775	1070	30844	50.05	813.6	31.05

* 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	40.73	10.61		51.33	43.08	44.02	0.94	95.35	0.00
Haryana	59.78	0.35		60.13	48.92	49.64	0.72	109.77	0.00
Rajasthan	128.45	4.50	7.25	140.20	62.96	66.09	3.13	206.29	0.00
Delhi	14.19			14.19	43.61	43.49	-0.12	57.68	0.07
UP	140.10	4.50		144.60	87.59	90.39	2.80	234.99	24.13
Uttarakhand		9.92		9.92	22.29	26.88	4.59	36.80	0.00
HP		5.69		5.69	20.41	20.49	0.08	26.19	0.00
J & K		4.99	0.00	4.99	35.89	37.90	2.01	42.89	6.85
Chandigarh				0.00	3.66	3.65	0.27	3.65	0.00
Total	383.24	40.56	7.25	431.05	368.41	382.55	14.42	813.60	31.05

* 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 (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	4928	0	47	-222	2846	0	22	-244	4928
Haryana	6057	0	-80	-776	3487	0	216	-748	6128
Rajasthan	8735	0	-172	754	7966	0	221	1017	9535
Delhi	2865	0	-125	-280	1468	0	-22	-783	3461
UP	9796	1395	-83	73	10153	775	432	63	10153
Uttarakhand	1809	75	187	462	1313	0	268	335	1946
HP	1173	0	20	269	777	0	2	357	1339
J&K	1890	333	129	658	1669	295	67	643	1957
Chandigarh	189	0	-3	0	96	0	3	-31	211
Total	37441	1803	-81	939	29775	1070	1209	610	37608

* 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 :

UI [OG:(+ve), UG: (-ve)]

A. NTPC	Station/ Constituent	Inst. Capacity (Effective) MW	Declared Capacity(MW)	Peak MW	Off Peak MW	Energy	Average	Schedule	UI
				(Gross)	(Gross)	(Net MU)	Sentout(MW)	Net MU	Net MU
	Singrauli STPS (5*200+2*500)	2000	1412	2075	2039	49.24	2052	33.47	15.77
	Rihand I STPS (2*500)	1000	929	889	924	21.45	894	21.16	0.29
	Rihand II STPS (2*500)	1000	906	874	945	22.11	921	20.41	1.71
	Rihand III STPS (2*500)	1000	963	949	728	21.96	915	21.02	0.94
	Dadri I STPS (4*210)	840	815	682	556	15.42	642	14.28	1.14
	Dadri II STPS (2*490)	980	980	812	656	17.79	741	18.82	-1.03
	Unchahar I TPS (2*210)	420	405	340	281	7.02	292	9.16	-2.15
	Unchahar II TPS (2*210)	420	403	309	269	6.87	286	8.54	-1.66
	Unchahar III TPS (1*220)	210	201	151	133	3.40	142	4.14	-0.74
	ISTPP (Jhajjar) (3*500)	1500	1500	734	666	15.90	663	18.35	-2.45
	Dadri GPS (4*130.19+2*154.51)	830	847	188	194	4.41	184	8.37	-3.95
	Anta GPS (3*88.71+1*153.2)	419	426	221	253	5.37	224	5.73	-0.36
	Auraiya GPS (4*111.19+2*109.30)	663	510	161	166	3.77	157	3.90	-0.13
	Dadri Solar	5	1	0	0	0.02	1	0.03	-0.01
	Unchahar Solar	10	3	0	0	0.03	1	0.07	-0.04
	Singrauli Solar	15	2	0	0	0.04	2	0	-0.01
	Sub Total (A)	11312	10304	8385	7810	195	8116	187	7
B. NPC	NAPS (2*220)	440	392	414	431	9.27	386	9.41	-0.14
	RAPS- B (2*220)	440	412	453	454	9.77	407	9.89	-0.12
	RAPS- C (2*220)	440	214	398	420	8.87	369	5.14	3.73
	Sub Total (B)	1320	1018	1265	1305	27.90	1163	24.43	3.47
C. NHPC	Chamera I HPS (3*180)	540	534	475	0	4.42	184	1.60	2.82
	Chamera II HPS (3*100)	300	200	210	0	1.53	64	1.05	0.48
	Chamera III HPS (3*77)	231	231	227	0	0.75	31	0.66	0.09
	Bairasuil HPS(3*60)	180	179	184	0	1.51	63	0.60	0.91
	Salal-HPS (6*115)	690	90	230	200	4.82	201	2.17	2.66
	Tanakpur-HPS (3*40)	94	23	30	25	0.61	26	0.56	0.05
	Uri-I HPS (4*120)	480	154	351	328	7.64	318	3.70	3.94
	Uri-II HPS (4*60)	240	0	0	0	0.00	0	0.00	0.00
	Dhauliganga-HPS (4*70)	280	140	140	0	0.74	31	0.90	-0.16
	Dulhasti-HPS (3*130)	390	258	273	0	3.14	131	2.40	0.74
	Sewa-II HPS (3*40)	120	74	0	0	0.13	5	0.37	-0.24
	Parbati 3 (4*130)	520	130	132	0	0.43	18	0.26	0.17
	Sub Total (C)	4065	2014	2253	553	26	1071	14	11
D.SJVNL	NJPC (6*250)	1500	1605	1352	0	5.93	247	5.99	-0.06
	Rampur HEP (4*68.67)	275	370	300	0	1.61	67	1.63	-0.02
	Sub Total (D)	1775	1975	1652	0	7.54	314	7.62	-0.08
E. THDC	Tehri HPS (4*250)	1000	896	863	0	9.03	376	7.90	1.13
	Koteshwar HPS (4*100)	400	125	300	100	3.50	146	3.00	0.50
	Sub Total (E)	1400	1021	1163	100	12.53	522	10.90	1.63
F. BBMB	Bhakra HPS (3*108+2*126+6*157)	1514	686	1144	464	17.92	747	16.47	1.45
	Dehar HPS (6*165)	990	144	330	0	5.22	218	3.45	1.77
	Pong HPS (6*66)	396	121	236	0	2.41	101	2.90	-0.48
	Sub Total (F)	2900	951	1710	464	25.55	1065	22.82	2.74
G. IPP(s)/JV(s)	ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	0	0	0.30	13	0.35	-0.04
	KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	0	0	3.11	130	3.13	-0.01
	Malana Stg-II HPS (2*50)	100	0	0	0	0.00	0	0.00	0.00
	Shree Cement TPS (2*150)	300	0	130	110	3.04	127	5.01	-1.97
	Budhil HPS(IPP)	70	0	0	0	0.14	6	0.15	0.00
	Sub Total (G)	1662	0	130	110	6.60	275	8.63	-2.03
H. Total Regional Entities (A-G)		24434	17282	16557	10343	300.63	12526	276.15	24.49

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	320	320	7.59	316
	Guru Nanak Dev TPS(Bhatinda) (4*110)	440	100	100	2.33	97
	Guru Hargobind Singh TPS(L.mbt) (2*210+2*250)	920	554	563	13.73	572
	Goindwal(GVK)		0	0	0.00	0
	Rajpura (2*700)	1400	376	352	9.50	396
	Talwandi Saboo (1*660)	660	344	341	7.58	316
	Thermal (Total)	4680	1694	1676	40.73	1697
	Total Hydro	1148	392	402	10.61	442
Total Punjab	5828	2086	2078	51.33	2139	
Haryana	Panipat TPS (4*110+2*210+2*250)	1367	233	413	7.96	332
	DCRTPP (Yamuna nagar) (2*300)	600	278	246	5.91	246
	Faridabad GPS (NTPC)	432	200	175	4.20	175
	RGTPP (khedar) (IPP) (2*600)	1200	1166	743	19.48	812
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP) (2*660)	1320	992	742	22.22	926
	Thermal (Total)	4944	2869	2319	59.78	2491
	Total Hydro	62	12	14	0.35	14
Total Haryana	5006	2881	2333	60.13	2505	
Rajasthan	kota TPS (2*110+2*195+3*210)	1240	1100	1078	26.13	1089
	suratgarh TPS (6*250)	1500	1231	1133	29.71	1238
	Chabra TPS (3*250)	750	647	630	15.55	648
	Dholpur GPS (3*110)	330	113	113	2.92	122
	Ramgarh GPS (1*3 + 1*35.5 +2*37.5 +1*110 +1*50)	271	37	37	0.93	39
	RAPS A (NPC) (1*100+1*200)	300	158	161	4.09	170
	Barsingsar (NLC) (2*125)	250	96	97	2.17	91
	Giral LTPS (2*125)	250	0	0	0.00	0
	Rajwest LTPS (IPP) (8*135)	1080	752	819	19.23	801
	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	1181	1180	27.72	1155
	Thermal (Total)	8026	5315	5248	128	5352
	Total Hydro	550	145	91	4.50	188
	Wind power	2798	242	168	6.68	278
	Biomass	99	20	20	0.48	20
	Solar	730	1	0	0.09	4
Renewable/Others (Total)	3627	263	188	7.25	302	
Total Rajasthan	12203	5723	5527	140.20	5842	
UP	Anpara TPS (3*210+2*500)	1630	1384	1390	33.00	1375
	Obra TPS (2*50+2*94+5*200)	1194	333	344	8.30	346
	Paricha TPS (2*110+2*220+2*250)	1140	664	645	15.70	654
	Panki TPS (2*105)	210	117	63	2.60	108
	Harduaganj TPS (1*60+1*105+2*250)	665	440	437	10.50	438
	Tanda TPS (NTPC) (4*110)	440	388	392	9.00	375
	Roza TPS (IPP) (4*300)	1200	1071	1044	21.90	913
	Anpara-C (IPP) (2*600)	1200	545	540	12.90	538
	Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)	450	401	279	7.00	292
	Thermal (Total)	8129	5343	5134	120.90	5038
	Vishnuparyag HPS (IPP)	400	64	68	1.60	67
	Other Hydro	527	293	173	2.90	121
	Cogeneration	981	800	800	19.20	800
Total UP	10037	6500	6175	144.60	5958	
Uttarakhand	Total Hydro	1398	595	334	9.92	413
	Total Uttarakhand	1398	595	334	9.92	413
Delhi	Rajghat TPS (2*67.5)	135	34	34	0.73	30
	Delhi Gas Turbine (6x30 + 3x34)	282	78	79	1.84	77
	Pragati Gas Turbine (2x104+ 1x122)	330	154	158	3.75	156
	Rithala GPS (3*36)	95	0	0	0.00	0
	Bawana GPS (6*250)	1370	311	0	4.00	167
	Badarpur TPS (NTPC) (3*95+2*210)	705	160	163	3.87	161
	Thermal (Total)	2917	737	434	14.19	591
Total Delhi	2917	737	434	14.19	591	
HP	Baspa HPS (IPP) (2*150)	300	30	0	0.85	36
	Malana HPS (IPP) (2*43)	86	0	0	0.23	10
	Other Hydro	728	211	168	4.61	192
	Total HP	1114	241	168	5.69	237
J & K	Baglihar HPS (IPP) (3*150)	450	150	150	3.60	150
	Other Hydro/IPP	436	68	41	1.39	58
	Gas/Diesel/Others	209	0	0	0.00	0
	Total J & K	1094	218	191	4.99	208
Total State Control Area Generation		39597	18981	17240	431.05	17894
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			4952	4207	118.52	4938
Total Regional Availability(Gross)		64032	40490	31790	850.21	35359

IV. Total Hydro Generation:

Regional Entities Hydro	11432	6778	1117	74.75	3115
State Control Area Hydro	5684	1896	1373	40.56	1623
Total Regional Hydro	17116	8674	2490	115.31	4738

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	-50	-50	0	500	0.00	5.11	-5.11
Gwalior-Agra (D/C)	1615	1293	2272	0	40.75	0.00	40.75
Zerda-Kankroli	-130	-355	0	373	0.00	5.58	-5.58
Zerda-Bhinmal	-32	-239	35	284	0.00	2.94	-2.94
Malanpur-Auraiya	-87	-133	0	133	0.00	2.21	-2.21
Badod-Kota/Morak	-94	-173	0	184	0.00	3.25	-3.25
Mundra-Mohindergarh(HVDC)	2302	2501	2506	0	58.29	0.00	58.29
Vindhychal - Rihand	492	482	497	0	11.49	0.00	11.49
Sub Total WR	4016	3326			110.53	19.09	91.44
Pusauli Bypass	400	400	400	0	8.89	0.00	8.89
MZP- GKP (D/C)	-35	40	242	180	1.20	0.00	1.20
Patna-Balia(D/C)	426	418	605	0	11.29	0.00	11.29
B'Sharif-Balia (D/C)	-83	-74	76	206	0.00	1.04	-1.04
Pusauli-Balia	-59	-27	61	74	0.00	0.09	-0.09
Gaya-Fatehpur (765 Kv)	314	197	448	0	6.94	0.00	6.94
Pusauli-Sahupuri	147	151	194	0	3.42	0.00	3.42
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-40	-36	0	44	0.00	0.85	-0.85
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	-134	-188	23	195	0.00	2.67	-2.67
Sub Total ER	936	881			31.73	4.65	27.09
Total IR Exch	4952	4207			142.26	23.74	118.52

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
24.91	0.22	25.13	3.40	-1.54	10.44	7.25	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
39.19	73.29	112.49	27.09	91.44	118.52	-12.11	18.14	6.04

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	1.96	14.84	41.14	56.35	18.03	9.35	1.46	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					
50.34	21.59	49.71	14.49	50.00	0.08	0.09	50.26	49.88

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	03:56	400	19:28	0.0	0.0	0.0	0.0
Gorakhpur	400	413	21:55	393	14:33	0.0	0.0	0.0	0.0
Bareilly	400	423	21:55	394	14:40	0.0	0.0	4.3	0.0
Kanpur	400	422	03:58	399	14:23	0.0	0.0	3.1	0.0
Dadri	400	419	03:57	396	14:23	0.5	0.5	0.0	0.0
Ballabgarh	400	429	03:58	400	14:16	0.0	0.0	35.2	0.0
Bawana	400	427	03:58	400	14:15	0.0	0.0	32.8	0.0
Bassi	400	424	21:47	395	13:44	0.0	0.0	6.3	0.0
Hissar	400	417	03:58	388	14:42	0.0	3.0	0.0	0.0
Moga	400	423	03:58	393	14:51	0.0	0.0	6.2	0.0
Abdullapur	400	424	03:57	396	14:21	0.0	0.0	9.2	0.0
Nalagarh	400	433	21:57	403	14:36	0.0	0.0	40.9	2.6
Kishenpur	400	225	04:00	207	19:45	100.0	100.0	0.0	0.0
Wagoora	400	402	04:02	364	19:44	52.8	70.4	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	783	23:57	737	14:39	0.0	5.4	0.0	0.0
Balia	765	783	23:57	746	09:10	0.0	0.0	0.0	0.0
Moga	765	802	03:58	746	14:42	0.0	0.0	0.6	0.0
Agra	765	793	21:52	747	14:26	0.0	0.0	0.0	0.0
Bhiwani	765	807	03:59	753	14:42	0.0	0.0	9.5	0.0
Unnao	765	773	23:57	729	14:38	0.0	20.9	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	485.13	593.99	492.14	808.03	137.51	621.70
Pong	426.72	384.05	399.25	203.01	406.65	388.64	143.48	176.07
Tehri	829.79	740.04	788.75	439.29	794.70	529.09	35.70	235.00
Koteshwar	612.50	598.50	610.52	4.83	610.70	4.95	235.00	232.00
Chamera-I	760.00	748.75	759.18	0.00	0.00	0.00	97.18	119.17
Rihand	268.22	252.98	848.60	233.20	851.90	286.30	0.00	0.00
RPS	352.80	343.81	1137.59	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	500.84	2.96	508.57	2.55	95.94	144.93

* 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	77	0	-290	69	0	-7.22	2.40	-4.82
Delhi	-687	-75	-20	-475	205	-10	-10.59	2.61	-7.98
Haryana	-900	152	0	-897	121	0	-22.80	2.66	-20.14
HP	413	-55	0	383	-114	0	11.22	-2.32	8.91
J&K	647	-3	0	468	191	0	13.15	1.82	14.97
CHD	-31	0	0	0	0	0	-0.24	0.37	0.12
Rajasthan	489	526	2	489	266	-1	11.74	9.39	21.13
UP	63	0	0	73	0	0	-0.04	0.00	-0.04
Uttarakhand	268	23	44	268	194	0	6.34	4.38	10.73
Total	-59	643	26	18	932	-11	1.56	21.32	22.88

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	-290	-321	222	0	0	0
Delhi	-120	-687	396	-75	-10	-20
Haryana	-897	-1068	154	-89	0	0
HP	541	383	10	-507	0	0
J&K	647	468	266	-80	0	0
CHD	0	-31	44	0	0	0
Rajasthan	489	489	527	-154	2	-74
UP	105	-145	0	0	0	0
Uttarakhand	268	252	284	5	73	0

XI. System Constraints:**XII. Grid Disturbance / Any Other Significant Event:****XIII. Weather Conditions For 10.02.2015 :**

Normal

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

1. 400 kV 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.
2. 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.
3. 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 :**