

पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिड की पूर्ण स्वामित्व प्राप्त महायुक्त कंपनी)



उत्तरी क्षेत्रीय भार प्रेषण केंद्र

CIN: U40105DL2009GOI188682

Power Supply Position in Northern Region for 28.02.2015
Date of Reporting : 01.03.2015

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
35891	1886	37778	50.08	29595	895	30490	50.10	793.6	32.46

* 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	23.05	8.83		31.88	45.53	46.25	0.72	78.13	0.00
Haryana	57.82	0.56		58.38	67.00	67.43	0.44	125.81	0.00
Rajasthan	116.38	4.47	20.67	141.52	62.57	59.09	-3.48	200.61	0.00
Delhi	17.50			17.50	38.58	39.25	0.66	56.74	0.02
UP	131.30	4.65		135.95	87.56	89.29	1.73	225.23	31.77
Uttarakhand		10.62		10.62	20.50	21.54	1.04	32.16	0.56
HP		9.00		9.00	15.85	17.12	1.27	26.12	0.11
J & K		11.21	0.00	11.21	34.46	34.27	-0.18	45.49	0.00
Chandigarh				0.00	3.42	3.31	0.27	3.31	0.00
Total	346.05	49.34	20.67	416.06	375.46	377.55	2.47	793.60	32.46

* 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	3914	0	-123	-167	2679	0	151	-262	3983
Haryana	6123	0	100	-459	4270	0	-56	-571	6579
Rajasthan	7940	0	-377	402	8347	0	129	834	9711
Delhi	2695	0	-152	-437	1512	0	-45	-1051	3116
UP	10211	1470	321	73	9079	600	213	69	10966
Uttarakhand	1590	40	-17	387	1150	0	23	287	1639
HP	1192	15	-68	-71	801	0	-4	83	1391
J&K	2049	362	-152	452	1672	295	-54	434	2077
Chandigarh	178	0	-21	-20	85	0	-17	-35	186
Total	35891	1886	-491	160	29595	895	341	-212	37064

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

Diversity is 1.07

III. Regional Entities :

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	1930	1727	1817	45.83	1910	42.42	3.41
Rihand I STPS (2*500)	1000	884	695	761	19.63	818	17.93	1.70
Rihand II STPS (2*500)	1000	900	684	700	18.45	769	17.14	1.31
Rihand III STPS (2*500)	1000	519	370	388	10.62	443	9.91	0.71
Dadri I STPS (4*210)	840	809	611	558	15.10	629	14.41	0.69
Dadri II STPS (2*490)	980	980	682	664	17.18	716	16.73	0.45
Unchahar I TPS (2*210)	420	405	261	268	6.52	272	7.13	-0.61
Unchahar II TPS (2*210)	420	403	265	263	6.58	274	6.88	-0.30
Unchahar III TPS (1*220)	210	201	128	134	3.23	134	3.38	-0.15
ISTPP (Jhajhar) (3*500)	1500	1500	688	886	20.15	840	20.91	-0.76
Dadri GPS (4*130.19+2*154.51)	830	843	199	160	5.16	215	5.25	-0.09
Anta GPS (3*88.71+1*153.2)	419	418	0	0	0.00	0	0.00	0.00
Auraiya GPS (4*111.19+2*109.30)	663	510	305	252	7.09	295	7.15	-0.06
Dadri Solar	5	1	0	0	0.02	1	0.03	0.00
Unchahar Solar	10	0	0	0	0.00	0	0.00	0.00
Singrauli Solar	15	3	0	0	0.04	2	0	-0.03
Sub Total (A)	11312	10305	6615	6851	176	7316	169	6
B. NPC								
NAPS (2*220)	440	385	421	433	9.40	392	9.24	0.16
RAPS- B (2*220)	440	414	452	456	9.86	411	9.94	-0.08
RAPS- C (2*220)	440	420	450	447	9.76	407	10.08	-0.32
Sub Total (B)	1320	1219	1323	1336	29.02	1209	29.26	-0.24
C. NHPC								
Chamera I HPS (3*180)	540	534	543	538	12.85	536	12.82	0.04
Chamera II HPS (3*100)	300	200	200	100	3.45	144	2.33	1.12
Chamera III HPS (3*77)	231	231	231	0	1.27	53	1.25	0.02
Bairasuli HPS(3*60)	180	179	180	80	2.79	116	2.74	0.05
Salal-HPS (6*115)	690	241	345	377	6.14	256	5.79	0.34
Tanakpur-HPS (3*40)	94	29	31	33	0.73	30	0.69	0.04
Uri-I HPS (4*120)	480	475	475	474	11.00	458	11.40	-0.40
Uri-II HPS (4*60)	240	0	0	0	0.00	0	0.00	0.00
Dhauliganga-HPS (4*70)	280	140	140	0	1.26	53	1.20	0.06
Dulhasti-HPS (3*130)	390	387	409	0	2.28	95	2.20	0.08
Sewa-II HPS (3*40)	120	122	130	130	3.11	130	2.93	0.18
Parbati 3 (4*130)	520	260	263	0	0.68	28	0.65	0.03
Sub Total (C)	4065	2798	2948	1733	46	1899	44	2
D. SJVNL								
NJPC (6*250)	1500	1350	1352	0	5.66	236	5.63	0.03
Rampur HEP (4*68.67)	275	370	372	0	1.58	66	1.56	0.02
Sub Total (D)	1775	1720	1724	0	7.24	302	7.19	0.05
E. THDC								
Tehri HPS (4*250)	1000	832	838	0	7.44	310	7.40	0.04
Koteshwar HPS (4*100)	400	125	300	0	3.02	126	3.00	0.02
Sub Total (E)	1400	957	1138	0	10.46	436	10.40	0.06
F. BBMB								
Bhakra HPS (3*108+2*126+6*157)	1514	647	1231	487	15.87	661	15.53	0.34
Dehar HPS (6*165)	990	320	330	330	7.76	323	7.68	0.08
Pong HPS (6*66)	396	33	174	0	0.76	32	0.80	-0.04
Sub Total (F)	2900	1000	1735	817	24.38	1016	24.00	0.38
G. IPP(s)/JV(s)								
ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	0	0	0.38	16	0.37	0.01
KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	518	0	3.00	125	3.00	0.00
Malana Stg-II HPS (2*50)	100	0	0	0	0.00	0	0.00	0.00
Shree Cement TPS (2*150)	300	0	117	81	2.53	106	2.54	0.00
Budhil HPS(IPP)	70	0	36	0	0.36	15	0.36	0.00
Sub Total (G)	1662	0	670	81	6.27	261	6.27	0.01
H. Total Regional Entities (A-G)	24434	17999	16153	10818	298.52	12438	290.44	8.08

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	160	210	3.86	161
	Guru Nanak Dev TPS(Bhatinda) (4*110)	440	0	0	-0.05	-2
	Guru Hargobind Singh TPS(L.mbt) (2*210+2*250)	920	186	195	4.16	173
	Goindwal(GVK)		0	0	0.00	0
	Rajpura (2*700)	1400	355	350	7.82	326
	Talwandi Saboo (1*660)	660	347	346	7.27	303
	Thermal (Total)	4680	1048	1101	23.05	961
	Total Hydro	1148	352	372	8.83	368
Total Punjab	5828	1400	1473	31.88	1328	
Haryana	Panipat TPS (4*110+2*210+2*250)	1367	221	221	5.23	218
	DCRTPP (Yamuna nagar) (2*300)	600	279	242	6.09	254
	Faridabad GPS (NTPC)	432	196	169	4.46	186
	RGTPP (khedar) (IPP) (2*600)	1200	828	755	19.18	799
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP) (2*660)	1320	1089	742	22.86	952
	Thermal (Total)	4944	2613	2129	57.82	2409
	Total Hydro	62	18	24	0.56	23
	Total Haryana	5006	2631	2153	58.38	2433
	Rajasthan	kota TPS (2*110+2*195+3*210)	1240	1056	1044	25.13
suratgarh TPS (6*250)		1500	1144	1150	26.73	1114
Chabra TPS (3*250)		750	577	574	13.89	579
Dholpur GPS (3*110)		330	107	114	2.67	111
Ramgarh GPS (1*3 + 1*35.5 +2*37.5 +1*110 +1*50)		271	227	220	5.51	230
RAPS A (NPC) (1*100+1*200)		300	159	151	4.08	170
Barsingsar (NLC) (2*125)		250	95	95	2.16	90
Giral LTPS (2*125)		250	0	0	0.00	0
Rajwest LTPS (IPP) (8*135)		1080	878	447	14.68	612
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	878	878	21.54	897
Thermal (Total)		8026	5121	4673	116	4849
Total Hydro		550	170	93	4.47	186
Wind power		2798	993	830	20.04	835
Biomass		99	26	26	0.63	26
Solar		730	0	0	0.00	0
Renewable/Others (Total)		3627	1019	856	20.67	861
Total Rajasthan		12203	6310	5622	141.52	5897
UP		Anpara TPS (3*210+2*500)	1630	1387	1409	33.20
	Obra TPS (2*50+2*94+5*200)	1194	245	334	6.30	263
	Paricha TPS (2*110+2*220+2*250)	1140	571	516	13.50	563
	Panki TPS (2*105)	210	135	122	3.10	129
	Harduaganj TPS (1*60+1*105+2*250)	665	329	351	8.60	358
	Tanda TPS (NTPC) (4*110)	440	325	320	8.06	336
	Roza TPS (IPP) (4*300)	1200	594	765	17.69	737
	Anpara-C (IPP) (2*600)	1200	1086	761	21.65	902
	Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)	450	0	0	0.00	0
	Thermal (Total)	8129	4672	4578	112.10	4671
	Vishnuparyag HPS (IPP)	400	75	78	1.82	76
	Other Hydro	527	56	70	2.84	118
	Cogeneration	981	800	800	19.20	800
	Total UP	10037	5603	5526	135.95	5589
Uttarakhand	Total Hydro	1398	526	448	10.62	442
	Total Uttarakhand	1398	526	448	10.62	442
Delhi	Raighat TPS (2*67.5)	135	29	38	0.84	35
	Delhi Gas Turbine (6x30 + 3x34)	282	79	81	1.89	79
	Pragati Gas Turbine (2x104+ 1x122)	330	154	162	3.82	159
	Rithala GPS (3*36)	95	0	0	0.00	0
	Bawana GPS (6*250)	1370	308	269	7.10	296
	Badarpur TPS (NTPC) (3*95+2*210)	705	161	163	3.84	160
	Thermal (Total)	2917	731	713	17.50	729
Total Delhi	2917	731	713	17.50	729	
HP	Baspa HPS (IPP) (2*150)	300	31	62	1.23	51
	Malana HPS (IPP) (2*43)	86	0	0	0.26	11
	Other Hydro	728	370	257	7.51	313
	Total HP	1114	401	319	9.00	375
J & K	Baqilhar HPS (IPP) (3*150)	450	442	292	9.13	381
	Other Hydro/IPP	436	105	42	2.08	87
	Gas/Diesel/Others	209	0	0	0.00	0
	Total J & K	1094	547	334	11.21	467
Total State Control Area Generation		39597	18149	16588	416.06	17260
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			4851.28	3535.26	113.86	4744
Total Regional Availability(Gross)		64032	39153	30942	828.44	34443

IV. Total Hydro Generation:

Regional Entities Hydro	11432	8063	2550	91.03	3793
State Control Area Hydro	5684	2070	1660	49.34	1980
Total Regional Hydro	17116	10133	4210	140.36	5773

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	300	-300	300	300	3.57	2.12	1.45
Gwalior-Agra (D/C)	1640	1301	2257	0	40.07	0.00	40.07
Zerda-Kankroli	-268	-378	0	414	0.00	6.62	-6.62
Zerda-Bhinmal	27	-257	107	327	0.00	2.22	-2.22
Malanpur-Auraiya	-99	-126	0	144	0.00	2.32	-2.32
Badod-Kota/Morak	-82	-127	0	0	0.00	2.53	-2.53
Mundra-Mohindergarh(HVDC)	2302	2297	2305	0	55.61	0.00	55.61
Vindhychal - Rihand	360	491	491	0	10.20	0.00	10.20
Sub Total WR	4180	2901			109.44	15.82	93.62
Pusauli Bypass	400	400	400	0	8.81	0.00	8.81
MZP- GKP (D/C)	28	112	88	234	0.00	1.53	-1.53
Patna-Balia(D/C)	614	473	685	0	13.59	0.00	13.59
B'Sharif-Balia (D/C)	-158	-150	20	298	0.00	3.41	-3.41
Pusauli-Balia	-17	-43	51	130	0.00	0.38	-0.38
Gaya-Fatehpur (765 Kv)	-7	-14	292	47	2.54	0.00	2.54
Pusauli-Sahupuri	129	166	186	0	3.14	0.00	3.14
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-30	-40	0	-49	0.00	-0.92	0.92
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	-288	-270	82	298	0.00	3.43	-3.43
Sub Total ER	671	634			28.08	7.84	20.24
Total IR Exch	4851	3535			137.52	23.66	113.86

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
14.61	0.19	14.80	4.10	-2.03	4.54	-0.07	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
23.66	79.09	102.76	20.24	93.62	113.86	-3.42	14.53	11.11

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	0.00	2.79	35.04	63.46	18.40	12.82	2.59	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					
50.35	18.02	49.81	5.41	50.03	0.07	0.08	50.27	49.97

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	411	23:58	404	09:51	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	426	03:02	406	18:48	0.0	0.0	21.1	0.0
Kanpur	400	422	03:59	402	10:22	0.0	0.0	2.2	0.0
Dadri	400	421	01:59	404	09:45	0.0	0.0	2.3	0.0
Ballabgarh	400	429	03:56	407	11:20	0.0	0.0	40.4	0.0
Bawana	400	425	03:40	406	11:21	0.0	0.0	29.3	0.0
Bassi	400	426	21:38	397	07:45	0.0	0.0	10.9	0.0
Hissar	400	417	21:45	395	11:24	0.0	0.0	0.0	0.0
Moga	400	422	20:57	406	11:16	0.0	0.0	4.9	0.0
Abdullapur	400	425	00:00	396	07:27	0.0	0.0	17.9	0.0
Nalagarh	400	432	20:54	104	06:51	26.4	27.0	30.2	3.3
Kishenpur	400	227	03:07	214	18:55	100.0	100.0	0.0	0.0
Wagoora	400	410	03:42	376	19:01	3.1	28.9	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	03:58	744	09:53	0.0	0.0	0.0	0.0
Balia	765	779	03:59	755	18:47	0.0	0.0	0.0	0.0
Moga	765	801	21:45	771	07:26	0.0	0.0	0.1	0.0
Agra	765	793	03:59	752	10:23	0.0	0.0	0.0	0.0
Bhiwani	765	0	00:00	9999	00:00	0.0	0.0	0.0	0.0
Unnao	765	776	03:43	742	10:20	0.0	0.0	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 ³ /s)	Usage (m ³ /s)
Bhakra	513.59	445.62	482.16	511.55	489.45	719.44	93.02	524.20
Pong	426.72	384.05	399.52	209.93	405.47	352.07	149.85	56.80
Tehri	829.79	740.04	784.40	378.00	791.35	475.00	61.56	199.00
Koteshwar	612.50	598.50	610.60	4.95	610.05	4.69	199.00	200.00
Chamera-I	760.00	748.75	757.30	0.00	0.00	0.00	211.84	346.42
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	502.43	3.05	508.63	1.60	347.39	141.52

* 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	-312	50	0	-287	120	0	-7.02	5.25	-1.77
Delhi	-684	-366	0	-473	44	-8	-11.19	-2.83	-14.02
Haryana	-634	63	0	-625	166	0	-16.33	2.54	-13.78
HP	401	-318	0	372	-443	0	10.22	-9.03	1.19
J&K	638	-204	0	452	0	0	12.83	-1.63	11.20
CHD	-31	0	-5	0	0	-20	-0.24	-0.11	-0.35
Rajasthan	294	538	2	294	106	2	7.05	10.44	17.50
UP	69	0	0	73	0	0	0.61	0.00	0.61
Uttarakhand	269	18	0	269	96	22	6.35	1.81	8.17
Total	10	-219	-3	75	90	-5	2.30	6.44	8.74

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	-281	-312	383	7	0	0
Delhi	-241	-684	78	-393	0	-31
Haryana	-625	-801	199	-259	0	0
HP	461	372	-205	-845	0	0
J&K	638	452	0	-204	0	0
CHD	0	-31	0	0	0	-20
Rajasthan	294	294	546	-166	2	-45
UP	125	-94	0	0	0	0
Uttarakhand	269	253	132	-7	49	0

XI. System Constraints:**XII. Grid Disturbance / Any Other Significant Event:****XIII. Weather Conditions For 28.02.2015 :**
NORMAL**XIV. Synchronisation of new generating units :****XV. Synchronisation of new 220 / 400 / 765 KV lines and energising of bus / /substation :**
1. 220kV Jalandhar-Hamirpur(PG) First time charged at 23:00 hrs on 28/02/15.
2. 220kV Hamirpur-Hamirpur(PG) First time charged at 23:16 hrs on 28/02/15.**XVI. Tripping of lines in pooling stations :****XVII. Complete generation loss in a generating station :**