

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 16.03.2015
Date of Reporting : 17.03.2015

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
31015	1163	32179	49.99	20244	205	20449	50.32	635.9	20.93

* 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	24.16	5.77		29.92	45.30	44.88	-0.43	74.80	0.00
Haryana	31.84	0.49		32.33	61.17	58.07	-3.10	90.40	0.00
Rajasthan	75.56	0.64	3.43	79.64	52.83	53.66	0.82	133.29	0.00
Delhi	18.66			18.66	38.70	37.91	-0.78	56.57	0.06
UP	112.40	4.50		116.90	73.35	72.61	-0.74	189.51	15.05
Uttarakhand		10.59		10.59	21.12	22.19	1.06	32.77	0.09
HP		7.62		7.62	15.42	15.92	0.50	23.54	0.13
J & K		10.14	0.00	10.14	25.30	21.60	-3.70	31.74	5.60
Chandigarh				0.00	3.42	3.31	0.27	3.31	0.00
Total	262.62	39.75	3.43	305.80	336.60	330.13	-6.09	635.93	20.93

* 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	3698	0	-77	-10	2312	0	60	-265	3860
Haryana	5062	0	-57	180	2440	0	-395	-190	5333
Rajasthan	5963	0	-50	444	4253	0	-153	586	6640
Delhi	2722	4	-225	-299	1411	0	-114	-813	3155
UP	9092	885	-235	142	6765	0	-189	108	9943
Uttarakhand	1616	0	78	485	1093	0	74	247	1675
HP	1133	0	54	-212	720	0	68	45	1235
J&K	1553	274	120	303	1163	205	-313	242	1553
Chandigarh	176	0	-2	0	87	0	-1	-20	182
Total	31015	1163	-394	1033	20244	205	-963	-61	33107

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

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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	1455	1567	1127	35.58	1483	32.66	2.92
Rihand I STPS (2*500)	1000	880	845	689	19.38	807	17.73	1.65
Rihand II STPS (2*500)	1000	826	777	660	16.98	708	15.84	1.14
Rihand III STPS (2*500)	1000	973	938	782	20.80	867	19.21	1.59
Dadri I STPS (4*210)	840	815	622	608	14.85	619	13.89	0.96
Dadri II STPS (2*490)	980	480	403	350	8.78	366	8.72	0.06
Unchahar I TPS (2*210)	420	405	382	265	7.03	293	7.23	-0.20
Unchahar II TPS (2*210)	420	403	217	157	4.11	171	4.27	-0.16
Unchahar III TPS (1*220)	210	201	197	125	3.40	142	3.48	-0.07
ISTPP (Jhajhar) (3*500)	1500	1467	489	639	14.91	621	16.44	-1.53
Dadri GPS (4*130.19+2*154.51)	830	845	155	136	4.82	201	4.67	0.15
Anta GPS (3*88.71+1*153.2)	419	418	265	199	5.28	220	5.34	-0.06
Auraiya GPS (4*111.19+2*109.30)	663	660	165	170	3.93	164	3.98	-0.05
Dadri Solar	5	1	0	0	0.02	1	0.03	0.00
Unchahar Solar	10	3	0	0	0.03	1	0.07	-0.04
Singrauli Solar	15	3	0	0	0.06	2	0	-0.01
Sub Total (A)	11312	9834	7022	5907	160	6665	154	6
B. NPC								
NAPS (2*220)	440	395	425	440	9.39	391	9.48	-0.09
RAPS- B (2*220)	440	408	448	454	9.76	407	9.79	-0.04
RAPS- C (2*220)	440	420	446	452	9.69	404	10.08	-0.39
Sub Total (B)	1320	1223	1319	1346	28.84	1202	29.35	-0.51
C. NHPC								
Chamera I HPS (3*180)	540	534	548	0	3.02	126	2.94	0.09
Chamera II HPS (3*100)	300	300	307	0	3.35	140	3.28	0.08
Chamera III HPS (3*77)	231	231	231	0	1.70	71	1.65	0.05
Bairasuli HPS(3*60)	180	179	182	57	3.21	134	3.12	0.09
Salal-HPS (6*115)	690	432	460	453	10.50	437	10.37	0.13
Tanakpur-HPS (3*40)	94	39	49	33	1.04	43	0.94	0.10
Uri-I HPS (4*120)	480	468	443	474	11.05	460	11.23	-0.18
Uri-II HPS (4*60)	240	0	0	0	0.00	0	0.00	0.00
Dhauliganga-HPS (4*70)	280	210	206	70	1.52	63	1.47	0.05
Dulhasti-HPS (3*130)	390	387	406	0	3.22	134	3.08	0.15
Sewa-II HPS (3*40)	120	122	130	130	2.88	120	2.93	-0.05
Parbati 3 (4*130)	520	260	262	0	0.62	26	0.59	0.04
Sub Total (C)	4065	3162	3224	1217	42	1755	42	1
D. SJVNL								
NJPC (6*250)	1500	1605	1594	0	6.24	260	6.20	0.03
Rampur HEP (4*68.67)	275	287	438	0	1.74	73	1.72	0.03
Sub Total (D)	1775	1892	2032	0	7.98	332	7.92	0.06
E. THDC								
Tehri HPS (4*250)	1000	594	595	0	6.75	281	6.70	0.05
Koteshwar HPS (4*100)	400	117	300	0	2.85	119	2.80	0.05
Sub Total (E)	1400	711	895	0	9.60	400	9.50	0.10
F. BBMB								
Bhakra HPS (3*108+2*126+6*157)	1514	395	780	310	9.58	399	9.48	0.10
Dehar HPS (6*165)	990	275	495	140	6.66	277	6.60	0.05
Pong HPS (6*66)	396	6	122	0	0.11	5	0.15	-0.04
Sub Total (F)	2900	676	1397	450	16.35	681	16.23	0.12
G. IPP(s)/JV(s)								
ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	96	0	0.31	13	0.30	0.01
KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	697	0	3.35	140	3.36	-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	102	91	2.29	95	2.19	0.09
Budhil HPS(IPP)	70	0	0	0	0.36	15	0.36	0.00
Sub Total (G)	1662	0	895	91	6.31	263	6.21	0.10
H. Total Regional Entities (A-G)	24434	17497	16784	9011	271.14	11298	264.40	6.74

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	160	3.61	151
	Guru Nanak Dev TPS(Bhatinda) (4*110)	440	0	0	-0.05	-2
	Guru Hargobind Singh TPS(L.mbt) (2*210+2*250)	920	160	157	3.56	148
	Goindwal(GVK)		0	0	0.00	0
	Rajpura (2*700)	1400	357	340	9.69	404
	Talwandi Saboo (1*660)	660	345	339	7.34	306
	Thermal (Total)	4680	1022	996	24.16	1007
	Total Hydro	1148	250	248	5.77	240
	Total Punjab	5828	1272	1244	29.92	1247
	Haryana	Panipat TPS (4*110+2*210+2*250)	1367	0	0	0.00
DCRTPP (Yamuna nagar) (2*300)		600	282	231	5.88	245
Faridabad GPS (NTPC)		432	204	169	4.51	188
RGTPP (khedar) (IPP) (2*600)		1200	0	0	0.00	0
Magnum Diesel (IPP)		25	0	0	0.00	0
Jhajjar(CLP) (2*660)		1320	1209	739	21.46	894
Thermal (Total)		4944	1695	1139	31.84	1327
Total Hydro		62	16	21	0.49	20
Total Haryana		5006	1711	1160	32.33	1347
Rajasthan		kota TPS (2*110+2*195+3*210)	1240	365	361	8.30
	suratgarh TPS (6*250)	1500	383	383	9.76	407
	Chabra TPS (3*250)	750	575	630	14.22	593
	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	218	222	5.46	228
	RAPS A (NPC) (1*100+1*200)	300	0	0	0.00	0
	Barsingar (NLC) (2*125)	250	185	182	4.36	182
	Giral LTPS (2*125)	250	0	0	0.00	0
	Rajwest LTPS (IPP) (8*135)	1080	845	505	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	600	137	14.22	593
	Thermal (Total)	8026	3171	2420	76	3148
	Total Hydro	550	40	23	0.64	27
	Wind power	2798	30	195	2.61	109
	Biomass	99	30	30	0.72	30
	Solar	730	1	0	0.11	5
	Renewable/Others (Total)	3627	61	225	3.43	143
	Total Rajasthan	12203	3272	2668	79.64	3318
	UP	Anpara TPS (3*210+2*500)	1630	1388	1092	32.00
Obra TPS (2*50+2*94+5*200)		1194	438	390	9.80	408
Paricha TPS (2*110+2*220+2*250)		1140	450	582	9.70	404
Panki TPS (2*105)		210	122	135	2.90	121
Harduaganj TPS (1*60+1*105+2*250)		665	435	324	8.40	350
Tanda TPS (NTPC) (4*110)		440	370	288	7.70	321
Roza TPS (IPP) (4*300)		1200	230	194	4.90	204
Anpara-C (IPP) (2*600)		1200	1091	635	17.80	742
Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)		450	0	0	0.00	0
Thermal (Total)		8129	4524	3640	93.20	3883
Vishnuparyag HPS (IPP)		400	75	75	1.70	71
Other Hydro		527	164	48	2.80	117
Cogeneration		981	800	800	19.20	800
Total UP		10037	5563	4563	116.90	4800
Uttarakhand		Total Hydro	1398	456	455	10.59
	Total Uttarakhand	1398	456	455	10.59	441
Delhi	Raighat TPS (2*67.5)	135	42	42	0.97	40
	Delhi Gas Turbine (6x30 + 3x34)	282	82	81	1.92	80
	Pragati Gas Turbine (2x104+ 1x122)	330	154	159	3.80	158
	Rithala GPS (3*36)	95	0	0	0.00	0
	Bawana GPS (6*250)	1370	316	271	7.30	304
	Badarpur TPS (NTPC) (3*95+2*210)	705	322	157	4.67	195
	Thermal (Total)	2917	916	710	18.66	777
	Total Delhi	2917	916	710	18.66	777
HP	Baspa HPS (IPP) (2*150)	300	31	0	0.74	31
	Malana HPS (IPP) (2*43)	86	0	0	0.23	10
	Other Hydro	728	309	251	6.65	277
	Total HP	1114	340	251	7.62	318
J & K	Baqilhar HPS (IPP) (3*150)	450	440	284	8.68	362
	Other Hydro/IPP	436	65	0	1.46	61
	Gas/Diesel/Others	209	0	0	0.00	0
	Total J & K	1094	505	284	10.14	423
Total State Control Area Generation		39597	14035	11335	305.80	12671
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			3717	429	83.69	3487
Total Regional Availability(Gross)		64032	34536	20776	660.63	27455

IV. Total Hydro Generation:

Regional Entities Hydro	11432	8341	1667	79.71	3321
State Control Area Hydro	5684	1771	1330	39.75	1585
Total Regional Hydro	17116	10112	2997	119.45	4906

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	-500	100	500	1.03	4.65	-3.62
Gwalior-Agra (D/C)	1143	232	2044	0	33.71	0.00	33.71
Zerda-Kankroli	-156	-400	0	400	0.00	4.99	-4.99
Zerda-Bhinmal	-96	-326	15	332	0.00	3.50	-3.50
Malanpur-Auraiya	25	45	0	46	0.00	0.38	-0.38
Badod-Kota/Morak	-1	-117	51	124	0.00	0.26	-0.26
Mundra-Mohindergarh(HVDC)	1902	1349	1904	0	39.06	0.00	39.06
Vindhychal - Rihand	421	282	503	0	10.11	0.00	10.11
Sub Total WR	3338	565			83.91	13.78	70.13
Pusauli Bypass	200	200	200	0	4.76	0.00	4.76
MZP- GKP (D/C)	-97	-182	196	185	0.00	0.56	-0.56
Patna-Balia(D/C)	538	417	703	0	11.17	0.00	11.17
B'Sharif-Balia (D/C)	-266	-239	0	290	0.00	4.01	-4.01
Pusauli-Balia	-98	-117	87	117	0.00	0.24	-0.24
Gaya-Fatehpur (765 Kv)	96	-45	220	45	2.78	0.00	2.78
Pusauli-Sahupuri	180	95	197	0	3.04	0.00	3.04
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-23	-40	0	40	0.00	1.04	-1.04
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	-151	-225	16	233	0.00	2.35	-2.35
Sub Total ER	379	-136			21.75	8.19	13.55
Total IR Exch	3717	429			105.66	21.97	83.69

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
20.69	0.22	20.91	3.44	-1.78	-0.96	20.81	0.57	-0.57

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
23.95	63.70	87.65	13.55	70.13	83.69	-10.40	6.43	-3.96

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	0.27	1.43	10.31	47.78	57.22	14.31	13.80	4.93	NA

Frequency (Hz)				Average Frequency	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX (Hz)	MIN (Hz)
Freq	Time	Freq	Time	Hz				
50.34	2.58	49.66	20.34	50.01	0.10	0.10	50.35	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	411	01:49	400	08:46	0.0	0.0	0.0	0.0
Gorakhpur	400	415	00:00	9999	00:00	0.0	0.0	0.0	0.0
Bareilly	400	431	02:51	403	19:12	0.0	0.0	24.2	0.2
Kanpur	400	428	02:54	404	19:14	0.0	0.0	22.1	0.0
Dadri	400	426	23:24	406	19:17	53.1	53.1	11.5	0.0
Ballabgarh	400	437	01:27	410	19:19	0.0	0.0	56.1	24.2
Bawana	400	433	01:10	408	19:06	0.0	0.0	43.5	8.1
Bassi	400	430	01:26	396	07:31	0.0	0.0	32.8	0.0
Hissar	400	426	01:10	396	06:41	0.0	0.0	19.6	0.0
Moga	400	429	01:11	405	19:11	0.0	0.0	34.5	0.0
Abdullapur	400	430	01:10	396	06:39	0.0	0.0	25.7	0.0
Nalagarh	400	436	21:32	396	10:56	0.0	0.0	44.8	21.9
Kishenpur	400	231	02:32	216	19:23	100.0	100.0	0.0	0.0
Wagoora	400	410	01:14	362	08:10	1.9	13.8	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	02:53	743	06:25	0.0	0.0	0.0	0.0
Balia	765	785	02:54	744	19:16	0.0	0.0	0.0	0.0
Moga	765	814	01:10	768	06:43	0.0	0.0	30.3	0.0
Agra	765	796	01:27	751	06:25	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	777	02:52	732	19:17	0.0	12.8	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	481.08	481.64	484.97	585.65	256.75	294.95
Pong	426.72	384.05	401.71	259.17	403.65	304.55	315.25	11.61
Tehri	829.79	740.04	778.95	308.66	784.55	379.00	43.04	186.00
Koteshwar	612.50	598.50	610.82	4.95	0.00	4.95	186.00	189.00
Chamera-I	760.00	748.75	759.02	0.00	0.00	0.00	197.41	82.18
Rihand	268.22	252.98	847.20	212.40	850.70	266.70	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	506.23	2.60	509.76	2.24	208.49	124.45

* 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	-326	61	0	-282	272	0	-7.10	6.02	-1.08
Delhi	-687	-95	-30	-439	170	-30	-11.34	1.59	-9.75
Haryana	20	-210	0	36	144	0	0.05	2.18	2.23
HP	162	-117	0	17	-229	0	3.18	-3.33	-0.15
J&K	546	-304	0	317	-14	0	9.70	-3.11	6.59
CHD	0	-20	0	0	0	0	0.00	-0.10	-0.10
Rajasthan	0	584	2	0	477	-33	0.00	11.64	11.64
UP	108	0	0	142	0	0	2.53	0.00	2.53
Uttarakhand	90	118	39	158	278	49	3.45	6.91	10.36
Total	-86	15	10	-51	1098	-15	0.47	21.80	22.27

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	-281	-326	406	15	0	0
Delhi	-377	-687	463	-101	-30	-30
Haryana	36	-28	162	-215	0	0
HP	168	17	10	-655	0	0
J&K	546	317	0	-304	0	0
CHD	0	0	0	-25	0	0
Rajasthan	0	0	584	-174	2	-33
UP	173	47	0	0	0	0
Uttarakhand	158	90	362	102	49	26

XI. System Constraints:**XII. Grid Disturbance / Any Other Significant Event:****XIII. Weather Conditions For 16.03.2015 :**

Cloudy/Rainfall in Northern region.

XIV. Synchronisation of new generating units :**XV. Synchronisation of new 220 / 400 / 765 KV lines and energising of bus / /substation :****XVI. Tripping of lines in pooling stations :****XVII. Complete generation loss in a generating station :**