

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 10.03.2015
Date of Reporting : 11.03.2015

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
32901	1269	34170	50.03	24792	583	25375	50.14	711.4	35.49

* 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	26.57	6.11		32.67	45.66	46.38	0.72	79.05	0.00
Haryana	23.25	0.65		23.90	68.23	68.64	0.41	92.54	0.01
Rajasthan	100.99	2.39	16.02	119.40	56.13	57.97	1.85	177.37	0.00
Delhi	16.52			16.52	38.21	40.00	1.79	56.52	0.11
UP	124.50	4.00		128.50	80.79	80.42	-0.36	208.92	27.62
Uttarakhand		9.86		9.86	19.71	22.72	3.01	32.58	1.11
HP		7.54		7.54	14.68	15.94	1.26	23.48	0.00
J & K		7.99	0.00	7.99	30.06	29.65	-0.42	37.64	6.64
Chandigarh				0.00	3.35	3.30	0.27	3.30	0.00
Total	291.83	38.53	16.02	346.37	356.81	365.02	8.52	711.40	35.49

* 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	3849	0	-38	-32	2680	0	116	-286	4469
Haryana	5133	0	177	164	2415	0	79	-161	5397
Rajasthan	7563	0	30	633	6617	0	130	660	8589
Delhi	2638	0	99	-507	1424	0	66	-886	3203
UP	9211	885	-599	139	8417	355	-85	112	10453
Uttarakhand	1607	75	157	364	1105	0	168	166	1748
HP	983	0	4	-284	756	0	50	91	1276
J&K	1751	309	-13	331	1292	228	-144	246	1932
Chandigarh	166	0	-22	-10	86	0	2	0	189
Total	32901	1269	-205	799	24792	583	382	-58	35410

* 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 :

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	1559	1406	37.18	1549	34.41	2.78
Rihand I STPS (2*500)	1000	902	999	777	21.36	890	19.45	1.91
Rihand II STPS (2*500)	1000	900	856	684	20.66	861	19.11	1.54
Rihand III STPS (2*500)	1000	973	504	510	12.52	522	12.03	0.49
Dadri I STPS (4*210)	840	815	770	510	16.58	691	16.00	0.58
Dadri II STPS (2*490)	980	476	436	331	10.03	418	9.78	0.25
Unchahar I TPS (2*210)	420	405	295	268	7.99	333	8.22	-0.23
Unchahar II TPS (2*210)	420	403	168	0	1.15	48	1.58	-0.44
Unchahar III TPS (1*220)	210	201	143	132	3.55	148	3.57	-0.02
ISTPP (Jhajhar) (3*500)	1500	1500	882	607	15.36	640	16.47	-1.11
Dadri GPS (4*130.19+2*154.51)	830	835	407	260	7.41	309	7.36	0.05
Anta GPS (3*88.71+1*153.2)	419	418	241	247	6.04	252	6.02	0.02
Auraiya GPS (4*111.19+2*109.30)	663	661	330	173	5.58	232	5.49	0.09
Dadri Solar	5	1	0	0	0.03	1	0.03	0.00
Unchahar Solar	10	3	0	0	0.04	2	0.07	-0.03
Singrauli Solar	15	3	0	0	0.06	2	0	-0.01
Sub Total (A)	11312	9950	7590	5905	166	6897	160	6
B. NPC								
NAPS (2*220)	440	393	432	443	9.54	398	9.43	0.11
RAPS- B (2*220)	440	409	456	459	9.89	412	9.82	0.07
RAPS- C (2*220)	440	414	450	450	9.80	409	9.94	-0.13
Sub Total (B)	1320	1216	1338	1352	29.23	1218	29.18	0.05
C. NHPC								
Chamera I HPS (3*180)	540	534	549	0	7.14	297	7.00	0.14
Chamera II HPS (3*100)	300	300	309	0	2.70	113	2.65	0.05
Chamera III HPS (3*77)	231	231	230	0	1.40	58	1.36	0.04
Bairasuli HPS(3*60)	180	179	181	59	2.86	119	2.78	0.08
Salal-HPS (6*115)	690	383	460	440	9.46	394	9.18	0.28
Tanakpur-HPS (3*40)	94	36	51	36	0.91	38	0.87	0.03
Uri-I HPS (4*120)	480	468	475	475	11.39	475	11.23	0.16
Uri-II HPS (4*60)	240	0	0	0	0.00	0	0.00	0.00
Dhauliganga-HPS (4*70)	280	210	210	0	1.11	46	1.05	0.06
Dulhasti-HPS (3*130)	390	387	405	0	2.84	118	2.70	0.14
Sewa-II HPS (3*40)	120	122	131	130	3.09	129	2.93	0.16
Parbati 3 (4*130)	520	260	263	0	0.55	23	0.52	0.03
Sub Total (C)	4065	3110	3265	1140	43	1810	42	1
D. SJVNL								
NJPC (6*250)	1500	1605	1614	0	6.84	285	6.60	0.24
Rampur HEP (4*68.67)	275	274	374	0	1.56	65	1.68	-0.11
Sub Total (D)	1775	1879	1988	0	8.40	350	8.28	0.12
E. THDC								
Tehri HPS (4*250)	1000	804	805	0	6.87	286	6.80	0.07
Koteshwar HPS (4*100)	400	117	300	90	2.80	117	2.80	0.00
Sub Total (E)	1400	921	1105	90	9.67	403	9.60	0.07
F. BBMB								
Bhakra HPS (3*108+2*126+6*157)	1514	384	782	311	9.58	399	9.21	0.37
Dehar HPS (6*165)	990	281	495	150	6.92	289	6.74	0.18
Pong HPS (6*66)	396	7	120	0	0.11	5	0.17	-0.07
Sub Total (F)	2900	672	1397	461	16.62	692	16.13	0.49
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	625	0	3.64	152	3.60	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	75	2.78	116	2.74	0.05
Budhil HPS(IPP)	70	0	70	0	0.21	9	0.21	0.00
Sub Total (G)	1662	0	828	75	6.93	289	6.83	0.10
H. Total Regional Entities (A-G)	24434	17747	17511	9023	279.81	11659	271.97	7.83

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	210	170	3.62	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	190	161	4.13	172
	Goindwal(GVK)		0	0	0.00	0
	Rajpura (2*700)	1400	558	342	10.77	449
	Talwandi Saboo (1*660)	660	347	334	8.09	337
	Thermal (Total)	4680	1305	1007	26.57	1107
	Total Hydro	1148	264	234	6.11	255
Total Punjab	5828	1569	1241	32.67	1361	
Haryana	Panipat TPS (4*110+2*210+2*250)	1367	0	0	0.00	0
	DCRTPP (Yamuna nagar) (2*300)	600	0	0	0.00	0
	Faridabad GPS (NTPC)	432	0	0	0.00	0
	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	1298	742	23.25	969
	Thermal (Total)	4944	1298	742	23.25	969
	Total Hydro	62	24	22	0.65	27
	Total Haryana	5006	1322	764	23.90	996
	Rajasthan	kota TPS (2*110+2*195+3*210)	1240	1071	867	24.23
suratgarh TPS (6*250)		1500	411	373	10.04	418
Chabra TPS (3*250)		750	721	692	17.03	710
Dholpur GPS (3*110)		330	124	115	2.91	121
Ramgarh GPS (1*3 + 1*35.5 +2*37.5 +1*110 +1*50)		271	226	222	5.50	229
RAPS A (NPC) (1*100+1*200)		300	169	158	4.12	172
Barsingsar (NLC) (2*125)		250	195	191	4.53	189
Giral LTPS (2*125)		250	0	0	0.00	0
Rajwest LTPS (IPP) (8*135)		1080	969	641	20.14	839
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	465	12.50	521
Thermal (Total)		8026	4486	3724	101	4208
Total Hydro		550	153	68	2.39	99
Wind power		2798	351	813	15.08	628
Biomass		99	30	30	0.73	30
Solar		730	2	0	0.21	9
Renewable/Others (Total)		3627	383	843	16.02	667
Total Rajasthan		12203	5022	4635	119.40	4975
UP		Anpara TPS (3*210+2*500)	1630	1397	1353	32.80
	Obra TPS (2*50+2*94+5*200)	1194	290	291	6.90	288
	Paricha TPS (2*110+2*220+2*250)	1140	700	654	15.50	646
	Panki TPS (2*105)	210	126	135	3.20	133
	Harduaganj TPS (1*60+1*105+2*250)	665	446	431	9.50	396
	Tanda TPS (NTPC) (4*110)	440	396	310	8.30	346
	Roza TPS (IPP) (4*300)	1200	257	198	5.10	213
	Anpara-C (IPP) (2*600)	1200	855	1078	24.00	1000
	Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)	450	0	0	0.00	0
	Thermal (Total)	8129	4467	4450	105.30	4388
	Vishnuparyag HPS (IPP)	400	74	63	1.70	71
	Other Hydro	527	69	68	2.30	96
	Cogeneration	981	800	800	19.20	800
	Total UP	10037	5410	5381	128.50	5283
	Uttarakhand	Total Hydro	1398	426	331	9.86
Total Uttarakhand		1398	426	331	9.86	411
Delhi	Raighat TPS (2*67.5)	135	0	0	0.06	3
	Delhi Gas Turbine (6x30 + 3x34)	282	79	81	1.94	81
	Pragati Gas Turbine (2x104+ 1x122)	330	154	161	3.81	159
	Rithala GPS (3*36)	95	0	0	0.00	0
	Bawana GPS (6*250)	1370	308	269	6.87	286
	Badarpur TPS (NTPC) (3*95+2*210)	705	160	162	3.84	160
	Thermal (Total)	2917	701	673	16.52	688
Total Delhi	2917	701	673	16.52	688	
HP	Baspa HPS (IPP) (2*150)	300	29	0	0.78	33
	Malana HPS (IPP) (2*43)	86	0	0	0.21	9
	Other Hydro	728	263	246	6.56	273
	Total HP	1114	292	246	7.54	314
J & K	Baqilhar HPS (IPP) (3*150)	450	296	214	6.53	272
	Other Hydro/IPP	436	65	0	1.46	61
	Gas/Diesel/Others	209	0	0	0.00	0
	Total J & K	1094	361	214	7.99	333
Total State Control Area Generation		39597	15103	13485	346.37	14361
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			4373	3113	109.58	4566
Total Regional Availability(Gross)		64032	36987	25621	735.76	30586

IV. Total Hydro Generation:

Regional Entities Hydro	11432	8380	1691	82.05	3419
State Control Area Hydro	5684	1589	1183	38.53	1535
Total Regional Hydro	17116	9969	2874	120.59	4954

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	Import	Export	
Vindhychal B/B	300	-500	500	500	7.01	1.97	5.04		
Gwalior-Agra (D/C)	1328	1631	2142	0	36.85	0.00	36.85		
Zerda-Kankroli	-245	-316	0	378	0.00	6.41	-6.41		
Zerda-Bhinmal	-176	-260	0	348	0.00	5.12	-5.12		
Malanpur-Auraiya	-127	-63	0	135	0.00	2.30	-2.30		
Badod-Kota/Morak	-159	-124	8	100	0.00	2.82	-2.82		
Mundra-Mohindergarh(HVDC)	2303	1798	2305	0	52.68	0.00	52.68		
Vindhychal - Rihand	476	303	507	0	10.25	0.00	10.25		
Sub Total WR	3700	2469			106.80	18.62	88.18		
Pusauli Bypass	200	200	200	0	4.80	0.00	4.80		
MZP- GKP (D/C)	35	31	183	118	0.50	0.00	0.50		
Patna-Balia(D/C)	553	559	631	0	13.63	0.00	13.63		
B'Sharif-Balia (D/C)	-175	-130	0	206	0.00	3.39	-3.39		
Pusauli-Balia	-34	-18	37	100	0.00	0.31	-0.31		
Gaya-Fatehpur (765 Kv)	98	38	295	0	4.18	0.00	4.18		
Pusauli-Sahupuri	166	182	183	0	3.51	0.00	3.51		
K'nasa-Sahupuri	0	0	0	0	0.48	0.00	0.48		
Son Ngr-Rihand	-34	-40	0	44	0.00	0.88	-0.88		
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00		
Sasaram - Fatehpur(765 KV)	-136	-178	94	186	0.00	1.12	-1.12		
Sub Total ER	673	644			27.10	5.70	21.40		
Total IR Exch	4373	3113			133.90	24.32	109.58		

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
21.43	0.18	21.62	5.06	-2.08	6.50	6.74	0.37	-0.37

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
33.54	70.58	104.12	21.40	88.18	109.58	-12.14	17.60	5.46

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	1.22	12.29	51.38	65.10	15.08	7.22	0.35	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				
50.23	14.01	49.75	19.34	49.99	0.06	0.08	50.21	49.92

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	412	02:45	400	19:02	0.0	0.0	0.0	0.0
Gorakhpur	400	412	13:32	391	19:10	0.0	0.0	0.0	0.0
Bareilly	400	426	02:53	404	19:18	0.0	0.0	20.5	0.0
Kanpur	400	422	02:52	404	19:08	0.0	0.0	2.5	0.0
Dadri	400	421	12:59	413	17:26	74.9	74.9	0.4	0.0
Ballabgarh	400	435	02:53	410	19:11	0.0	0.0	59.3	13.9
Bawana	400	432	02:41	408	19:06	0.0	0.0	39.9	3.9
Bassi	400	428	05:02	406	06:49	0.0	0.0	25.1	0.0
Hissar	400	423	02:42	397	06:48	0.0	0.0	5.6	0.0
Moga	400	427	02:53	405	19:07	0.0	0.0	31.4	0.0
Abdullapur	400	426	02:53	396	06:49	0.0	0.0	25.4	0.0
Nalagarh	400	434	02:53	386	11:59	0.0	1.5	51.2	9.4
Kishenpur	400	229	02:50	214	19:07	100.0	100.0	0.0	0.0
Wagoora	400	407	05:14	375	19:09	1.1	16.3	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	781	03:01	744	19:11	0.0	0.0	0.0	0.0
Balia	765	763	00:00	763	00:00	0.0	0.0	0.0	0.0
Moga	765	807	02:58	768	19:06	0.0	0.0	12.0	0.0
Agra	765	794	02:59	759	06:16	0.0	0.0	0.0	0.0
Bhiwani	765	810	21:41	768	05:42	0.0	0.0	6.0	0.0
Unnao	765	764	03:00	732	19:12	0.0	13.0	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	481.83	503.43	486.98	644.48	225.01	295.68
Pong	426.72	384.05	401.06	244.95	404.51	328.16	234.58	19.11
Tehri	829.79	740.04	781.40	338.00	787.10	413.00	42.41	187.00
Koteshwar	612.50	598.50	611.02	5.73	610.49	4.69	187.00	186.00
Chamera-I	760.00	748.75	757.06	0.00	0.00	0.00	187.62	192.90
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	505.13	3.28	508.84	1.35	214.66	146.68

* 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	-324	38	0	-284	252	0	-7.07	4.77	-2.30
Delhi	-672	-212	-2	-477	-15	-15	-11.99	-0.55	-12.54
Haryana	6	-167	0	15	150	0	-0.29	1.15	0.85
HP	287	-196	0	90	-373	0	5.86	-5.21	0.66
J&K	552	-306	0	331	0	0	9.86	-2.69	7.17
CHD	0	0	0	0	-10	0	0.00	-0.07	-0.07
Rajasthan	0	658	2	0	632	2	0.00	14.36	14.36
UP	112	0	0	139	0	0	2.43	0.00	2.43
Uttarakhand	89	78	0	156	194	13	3.42	3.95	7.37
Total	49	-107	0	-30	829	-1	2.21	15.71	17.92

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	-278	-325	362	6	0	0
Delhi	-415	-672	302	-266	-2	-15
Haryana	15	-42	171	-241	0	0
HP	293	90	3	-794	0	0
J&K	552	331	0	-306	0	0
CHD	0	0	0	-15	0	0
Rajasthan	0	0	662	517	2	2
UP	164	38	0	0	0	0
Uttarakhand	156	89	224	66	13	0

XI. System Constraints:**XII. Grid Disturbance / Any Other Significant Event:****XIII. Weather Conditions For 10.03.2015 :**

Rainfall in most parts of NR region and snowfall in some parts of 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 :**