

पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिड की पूर्ण स्वामित्व प्राप्त महायक कंपनी)



उत्तरी क्षेत्रीय भार प्रेषण केंद्र

CIN: U40105DL2009GOI188682

Power Supply Position in Northern Region for 13.03.2015
Date of Reporting : 14.03.2015

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
33864	1501	35365	50.10	26327	529	26856	50.03	731.4	27.08

* 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	29.36	6.54		35.90	47.48	48.17	0.69	84.07	0.00
Haryana	42.14	0.63		42.77	52.58	52.01	-0.57	94.78	0.00
Rajasthan	102.65	0.96	11.07	114.68	59.00	60.69	1.69	175.36	0.00
Delhi	18.01			18.01	39.55	40.79	1.25	58.81	0.09
UP	126.78	4.22		131.00	87.85	85.78	-2.08	216.78	18.76
Uttarakhand		8.94		8.94	21.64	24.05	2.41	32.98	1.01
HP		7.51		7.51	15.40	17.04	1.64	24.56	0.04
J & K		7.60	0.00	7.60	33.11	33.10	-0.01	40.69	7.18
Chandigarh				0.00	3.36	3.35	0.27	3.35	0.00
Total	318.94	36.39	11.07	366.40	359.96	364.98	5.29	731.38	27.08

* 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	4230	0	94	-105	2795	0	143	-280	4442
Haryana	5139	0	-82	-163	2573	0	-327	127	5761
Rajasthan	7280	0	-167	615	7082	0	0	718	8274
Delhi	2740	0	-102	-307	1473	0	37	-787	3290
UP	9788	1135	-114	139	8768	245	159	118	10083
Uttarakhand	1617	40	115	518	1188	0	173	238	1749
HP	1042	0	-4	-152	768	2	91	47	1350
J&K	1846	326	-37	317	1600	282	98	246	1864
Chandigarh	182	0	-4	-10	80	0	-9	-15	185
Total	33864	1501	-301	1178	26327	529	365	411	35031

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

Diversity is 1.06

III. Regional Entities :

Entity	Station/ Constituent	Inst. Capacity (Effective) MW	Declared Capacity(MW)	Peak MW (Gross)	Off Peak MW (Gross)	Energy (Net MU)	Average Sentout(MW)	Schedule Net MU	UI Net MU
A. NTPC	Singrauli STPS (5*200+2*500)	2000	1455	1566	1368	34.36	1432	34.11	0.25
	Rihand I STPS (2*500)	1000	868	877	742	21.57	899	19.81	1.76
	Rihand II STPS (2*500)	1000	900	934	683	21.16	882	19.53	1.63
	Rihand III STPS (2*500)	1000	973	1011	766	22.33	930	20.93	1.40
	Dadri I STPS (4*210)	840	815	603	563	15.30	638	14.45	0.85
	Dadri II STPS (2*490)	980	480	380	324	9.36	390	9.31	0.05
	Unchahar I TPS (2*210)	420	405	317	267	8.48	353	8.73	-0.25
	Unchahar II TPS (2*210)	420	403	164	132	4.36	182	4.63	-0.27
	Unchahar III TPS (1*220)	210	201	158	131	3.77	157	3.84	-0.07
	ISTPP (Jhajhar) (3*500)	1500	1500	627	697	15.99	666	17.56	-1.57
	Dadri GPS (4*130.19+2*154.51)	830	836	367	381	9.36	390	9.38	-0.02
	Anta GPS (3*88.71+1*153.2)	419	416	234	241	5.89	246	5.87	0.02
	Auraiya GPS (4*111.19+2*109.30)	663	660	311	317	7.57	315	7.75	-0.18
	Dadri Solar	5	1	0	0	0.01	1	0.02	-0.01
	Unchahar Solar	10	3	0	0	0.03	1	0.07	-0.04
	Singrauli Solar	15	3	0	0	0.04	2	0	-0.03
	Sub Total (A)	11312	9919	7549	6612	180	7483	176	4
B. NPC	NAPS (2*220)	440	395	424	432	9.35	390	9.48	-0.13
	RAPS- B (2*220)	440	408	451	450	9.74	406	9.79	-0.05
	RAPS- C (2*220)	440	414	449	441	9.54	397	9.94	-0.40
	Sub Total (B)	1320	1217	1324	1323	28.63	1193	29.21	-0.57
C. NHPC	Chamera I HPS (3*180)	540	534	537	0	6.13	256	6.00	0.13
	Chamera II HPS (3*100)	300	300	303	0	2.44	102	2.35	0.09
	Chamera III HPS (3*77)	231	231	226	0	1.23	51	1.19	0.04
	Bairasuli HPS(3*60)	180	179	180	77	2.57	107	2.51	0.06
	Salal-HPS (6*115)	690	303	460	384	7.57	316	7.28	0.29
	Tanakpur-HPS (3*40)	94	32	31	32	0.83	35	0.78	0.06
	Uri-I HPS (4*120)	480	475	475	475	11.43	476	11.40	0.03
	Uri-II HPS (4*60)	240	0	0	0	0.00	0	0.00	0.00
	Dhauliganga-HPS (4*70)	280	210	210	0	0.10	4	0.91	-0.81
	Dulhasti-HPS (3*130)	390	387	408	0	3.23	134	3.15	0.08
	Sewa-II HPS (3*40)	120	122	130	130	3.09	129	2.93	0.16
	Parbati 3 (4*130)	520	260	263	0	0.56	23	0.52	0.04
	Sub Total (C)	4065	3034	3223	1097	39	1632	39	0
	D. SJVNL	NJPC (6*250)	1500	1605	1583	0	6.86	286	6.70
Rampur HEP (4*68.67)		275	262	375	0	1.77	74	1.74	0.03
Sub Total (D)		1775	1867	1958	0	8.62	359	8.44	0.19
E. THDC	Tehri HPS (4*250)	1000	547	594	0	6.82	284	6.70	0.12
	Koteshwar HPS (4*100)	400	117	300	90	2.84	118	2.80	0.04
	Sub Total (E)	1400	663	894	90	9.65	402	9.50	0.15
F. BBMB	Bhakra HPS (3*108+2*126+6*157)	1514	460	946	318	12.01	500	11.04	0.97
	Dehar HPS (6*165)	990	265	495	165	6.60	275	6.35	0.25
	Pong HPS (6*66)	396	21	120	0	0.37	15	0.49	-0.12
	Sub Total (F)	2900	745	1561	483	18.98	791	17.88	1.10
	Sub Total (G)	1662	0	815	82	6.55	273	6.83	-0.28
G. IPP(s)/JV(s)	ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	98	0	0.34	14	0.32	0.01
	KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	580	0	3.32	138	3.36	-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	138	82	2.89	121	2.85	0.04
	Budhil HPS(IPP)	70	0	0	0	0.00	0	0.29	-0.29
	Sub Total (G)	1662	0	815	82	6.55	273	6.83	-0.28
H. Total Regional Entities (A-G)	24434	17445	17325	9687	291.21	12134	286.94	4.27	

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	160	4.04	168	
	Guru Nanak Dev TPS(Bhatinda) (4*110)	440	0	0	-0.05	-2	
	Guru Hargobind Singh TPS(L.mbt) (2*210+2*250)	920	211	160	4.07	170	
	Goindwal(GVK)		0	0	0.00	0	
	Rajpura (2*700)	1400	511	356	11.79	491	
	Talwandi Saboo (1*660)	660	467	346	9.51	396	
	Thermal (Total)	4680	1399	1022	29.36	1223	
	Total Hydro	1148	263	132	6.54	273	
Total Punjab	5828	1662	1154	35.90	1496		
Haryana	Panipat TPS (4*110+2*210+2*250)	1367	0	0	0.00	0	
	DCRTPP (Yamuna nagar) (2*300)	600	244	213	5.44	227	
	Faridabad GPS (NTPC)	432	179	165	4.41	184	
	RGTPP (khedar) (IPP) (2*600)	1200	586	372	9.76	407	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP) (2*660)	1320	1199	741	22.53	939	
	Thermal (Total)	4944	2208	1491	42.14	1756	
	Total Hydro	62	22	21	0.63	26	
	Total Haryana	5006	2230	1512	42.77	1782	
	Rajasthan	kota TPS (2*110+2*195+3*210)	1240	1089	1066	25.89	1079
suratgarh TPS (6*250)		1500	374	381	9.80	408	
Chabra TPS (3*250)		750	745	779	19.01	792	
Dholpur GPS (3*110)		330	119	126	3.11	130	
Ramgarh GPS (1*3 + 1*35.5 +2*37.5 +1*110 +1*50)		271	220	223	5.34	223	
RAPS A (NPC) (1*100+1*200)		300	175	162	4.11	171	
Barsingar (NLC) (2*125)		250	100	100	2.22	92	
Giral LTPS (2*125)		250	0	0	0.00	0	
Rajwst LTPS (IPP) (8*135)		1080	792	777	20.44	852	
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	576	483	12.72	530	
Thermal (Total)		8026	4190	4097	103	4277	
Total Hydro		550	23	23	0.96	40	
Wind power		2798	518	599	10.25	427	
Biomass		99	34	34	0.82	34	
Solar		730	0	0	0.00	0	
Renewable/Others (Total)		3627	552	633	11.07	461	
Total Rajasthan		12203	4765	4753	114.68	4778	
UP		Anpara TPS (3*210+2*500)	1630	1398	1373	32.90	1371
	Obra TPS (2*50+2*94+5*200)	1194	407	437	9.90	413	
	Paricha TPS (2*110+2*220+2*250)	1140	692	593	15.80	658	
	Panki TPS (2*105)	210	126	113	3.00	125	
	Harduaganj TPS (1*60+1*105+2*250)	665	419	338	9.50	396	
	Tanda TPS (NTPC) (4*110)	440	309	320	7.96	332	
	Roza TPS (IPP) (4*300)	1200	198	198	4.98	208	
	Anpara-C (IPP) (2*600)	1200	889	1089	23.54	981	
	Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)	450	0	0	0.00	0	
	Thermal (Total)	8129	4438	4461	107.58	4482	
	Vishnuparyag HPS (IPP)	400	74	74	1.76	73	
	Other Hydro	527	250	69	2.46	102	
	Cogeneration	981	800	800	19.20	800	
	Total UP	10037	5562	5404	131.00	5385	
	Uttarakhand	Total Hydro	1398	382	316	8.94	372
		Total Uttarakhand	1398	382	316	8.94	372
Delhi	Raighat TPS (2*67.5)	135	40	41	1.03	43	
	Delhi Gas Turbine (6x30 + 3x34)	282	81	81	1.93	80	
	Pragati Gas Turbine (2x104+ 1x122)	330	153	161	3.78	157	
	Rithala GPS (3*36)	95	0	0	0.00	0	
	Bawana GPS (6*250)	1370	322	270	7.33	305	
	Badarpur TPS (NTPC) (3*95+2*210)	705	154	154	3.95	165	
	Thermal (Total)	2917	750	707	18.01	751	
Total Delhi	2917	750	707	18.01	751		
HP	Baspa HPS (IPP) (2*150)	300	31	0	0.86	36	
	Malana HPS (IPP) (2*43)	86	0	0	0.24	10	
	Other Hydro	728	331	235	6.41	267	
	Total HP	1114	362	235	7.51	313	
J & K	Baqilhar HPS (IPP) (3*150)	450	296	214	6.14	256	
	Other Hydro/IPP	436	65	0	1.46	61	
	Gas/Diesel/Others	209	0	0	0.00	0	
	Total J & K	1094	361	214	7.60	317	
Total State Control Area Generation		39597	16074	14295	366.40	15193	
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			3531	2577	90.08	3753	
Total Regional Availability(Gross)		64032	36930	26560	747.69	31080	

IV. Total Hydro Generation:

Regional Entities Hydro	11432	8314	1670	80.08	3337
State Control Area Hydro	5684	1663	1010	36.39	1443
Total Regional Hydro	17116	9977	2680	116.47	4780

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	-200	-300	200	300	0.80	2.21	-1.41
Gwalior-Agra (D/C)	1012	1383	2097	0	38.50	0.00	38.50
Zerda-Kankroli	-236	-432	0	459	0.00	8.39	-8.39
Zerda-Bhinmal	-171	-380	0	453	0.00	6.60	-6.60
Malanpur-Auraiya	-139	-124	0	165	0.00	2.87	-2.87
Badod-Kota/Morak	-124	-118	0	169	0.00	2.73	-2.73
Mundra-Mohindergarh(HVDC)	2397	1801	2406	0	45.16	0.00	45.16
Vindhychal - Rihand	324	318	509	0	9.69	0.00	9.69
Sub Total WR	2863	2148			94.14	22.80	71.35
Pusauli Bypass	200	200	200	0	4.89	0.00	4.89
MZP- GKP (D/C)	123	-18	128	134	0.00	0.38	-0.38
Patna-Balia(D/C)	670	469	743	0	14.50	0.00	14.50
B'Sharif-Balia (D/C)	-232	-184	0	315	0.00	4.86	-4.86
Pusauli-Balia	-51	29	60	71	0.00	0.26	-0.26
Gaya-Fatehpur (765 Kv)	62	36	283	0	3.91	0.00	3.91
Pusauli-Sahupuri	131	128	194	0	3.44	0.00	3.44
K'nasa-Sahupuri	0	0	0	0	0.48	0.00	0.48
Son Ngr-Rihand	-40	-38	0	40	0.00	0.92	-0.92
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	-195	-193	25	210	0.00	2.07	-2.07
Sub Total ER	668	429			27.21	8.48	18.73
Total IR Exch	3531	2577			121.35	31.27	90.08

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
20.63	0.10	20.73	5.38	-2.38	2.97	9.46	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
29.29	63.85	93.13	18.73	71.35	90.08	-10.55	7.50	-3.05

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	0.10	1.94	16.44	60.39	65.63	11.25	6.64	0.12	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	18.32	49.66	21.07	49.98	0.07	0.08	50.20	49.91

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	407	02:07	398	06:22	0.0	0.0	0.0	0.0
Gorakhpur	400	411	08:00	402	05:00	100.0	100.0	0.0	0.0
Bareilly	400	423	02:00	404	07:00	100.0	100.0	0.0	0.0
Kanpur	400	420	01:59	402	06:41	0.0	0.0	0.0	0.0
Dadri	400	422	21:39	409	09:35	50.3	50.3	2.1	0.0
Ballabgarh	400	431	03:02	410	06:39	0.0	0.0	48.9	0.6
Bawana	400	428	02:45	408	06:39	0.0	0.0	36.8	0.0
Bassi	400	427	21:40	402	06:38	0.0	0.0	12.4	0.0
Hissar	400	419	03:00	397	06:39	0.0	0.0	0.0	0.0
Moga	400	425	02:45	406	06:39	0.0	0.0	27.7	0.0
Abdullapur	400	422	21:18	396	06:50	0.0	0.0	3.6	0.0
Nalagarh	400	432	21:16	379	11:25	0.9	0.9	39.0	3.1
Kishenpur	400	226	01:59	214	06:40	100.0	100.0	0.0	0.0
Wagoora	400	400	13:08	374	06:23	9.7	36.7	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	0	00:00	0	00:00	100.0	100.0	0.0	0.0
Balia	765	0	00:00	0	00:00	100.0	100.0	0.0	0.0
Moga	765	0	00:00	0	00:00	100.0	100.0	0.0	0.0
Agra	765	0	00:00	0	00:00	100.0	100.0	0.0	0.0
Bhiwani	765	0	00:00	0	00:00	100.0	100.0	0.0	0.0
Unnao	765	0	00:00	0	00:00	100.0	100.0	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	481.42	488.47	485.96	610.73	191.11	352.71
Pong	426.72	384.05	401.39	252.05	404.00	312.39	106.78	28.43
Tehri	829.79	740.04	780.25	321.38	785.85	396.53	41.95	186.00
Koteshwar	612.50	598.50	610.88	4.95	610.68	4.95	186.00	188.00
Chamera-I	760.00	748.75	756.71	0.00	0.00	0.00	157.59	165.51
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	505.46	2.89	509.44	2.76	205.67	140.27

* 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	-323	43	0	-284	178	0	-7.05	2.97	-4.08
Delhi	-672	-112	-3	-477	185	-15	-11.99	1.45	-10.54
Haryana	26	101	0	34	129	0	0.14	-1.62	-1.48
HP	287	-240	0	39	-191	0	5.56	-5.25	0.31
J&K	552	-306	0	331	-14	0	9.90	-3.22	6.68
CHD	0	-15	0	0	-10	0	0.00	-0.14	-0.14
Rajasthan	0	716	2	0	613	2	0.00	14.07	14.07
UP	118	0	0	139	0	0	2.55	0.00	2.55
Uttarakhand	89	150	0	156	319	42	3.42	6.28	9.70
Total	76	336	-1	-61	1211	29	2.52	14.55	17.07

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	-277	-323	364	0	0	0
Delhi	-415	-672	395	-153	-3	-15
Haryana	34	-22	153	-408	0	0
HP	293	39	10	-803	0	0
J&K	552	331	0	-306	0	0
CHD	0	0	0	-20	0	0
Rajasthan	0	0	717	336	2	2
UP	169	43	0	0	0	0
Uttarakhand	156	89	351	140	42	0

XI. System Constraints:**XII. Grid Disturbance / Any Other Significant Event:****XIII. Weather Conditions For 13.03.2015 :**
Cloudy**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 :**