

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 30.03.2015
Date of Reporting : 31.03.2015

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
31781	1032	32813	50.04	24095	328	24422	50.22	685.0	20.29

* 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	37.32	6.43		43.75	41.15	41.22	0.07	84.97	0.00
Haryana	21.75	0.54		22.29	63.06	62.15	-0.91	84.44	0.01
Rajasthan	92.30	0.80	6.04	99.14	56.51	58.67	2.15	157.80	0.00
Delhi	18.72			18.72	44.72	43.34	-1.38	62.06	0.19
UP	116.30	5.15		121.45	87.08	86.96	-0.12	208.41	13.45
Uttarakhand		12.35		12.35	16.58	15.36	-1.22	27.71	0.00
HP		11.65		11.65	10.76	11.71	0.95	23.35	0.00
J & K		12.69	0.00	12.69	25.39	20.04	-5.35	32.72	6.65
Chandigarh				0.00	3.65	3.51	0.27	3.51	0.00
Total	286.39	49.61	6.04	342.03	348.89	342.95	-5.53	684.98	20.29

* 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	3904	0	-13	-89	3123	0	-88	-1	4372
Haryana	4965	0	-109	171	1995	0	-832	179	5304
Rajasthan	6159	0	84	503	6128	0	73	567	7138
Delhi	2996	1	-70	-37	1949	66	27	-639	3220
UP	9276	735	167	142	8413	0	-258	124	9996
Uttarakhand	1494	0	67	454	797	0	-208	245	1522
HP	1035	8	7	-644	735	0	55	-210	1226
J&K	1770	288	191	248	852	262	-411	26	1857
Chandigarh	183	0	-1	-24	103	0	-14	0	183
Total	31781	1032	323	724	24095	328	-1657	293	34726

* STOA figures are at sellers boundary & PX figures are at regional boundary.

figures may not be at simultaneous hour.

Diversity is 1.00

III. Regional Entities :

A. NTPC	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
	Singrauli STPS (5*200+2*500)	2000	1945	1776	1631	40.34	1681	40.80	-0.47
	Rihand I STPS (2*500)	1000	925	893	718	18.57	774	16.98	1.58
	Rihand II STPS (2*500)	1000	475	410	339	9.24	385	8.51	0.74
	Rihand III STPS (2*500)	1000	970	884	754	18.68	778	17.19	1.49
	Dadri I STPS (4*210)	840	815	629	541	14.77	615	14.06	0.71
	Dadri II STPS (2*490)	980	480	360	328	8.38	349	8.17	0.21
	Unchahar I TPS (2*210)	420	405	262	293	6.61	275	6.84	-0.23
	Unchahar II TPS (2*210)	420	403	269	309	6.78	283	6.77	0.02
	Unchahar III TPS (1*220)	210	201	128	152	3.31	138	3.37	-0.06
	ISTPP (Jhajhar) (3*500)	1500	1500	944	673	16.73	697	18.02	-1.29
	Dadri GPS (4*130.19+2*154.51)	830	815	409	382	9.60	400	9.59	0.00
	Anta GPS (3*88.71+1*153.2)	419	172	0	0	0.00	0	0.00	0.00
	Auraiya GPS (4*111.19+2*109.30)	663	657	164	164	3.91	163	3.89	0.02
	Dadri Solar	5	1	0	0	0.02	1	0.02	0.00
	Unchahar Solar	10	3	0	0	0.02	1	0.06	-0.04
	Singrauli Solar	15	3	0	0	0.07	3	0	0.00
	Sub Total (A)	11312	9768	7128	6284	157	6543	154	3
B. NPC	NAPS (2*220)	440	388	388	388	9.31	388	9.31	0.00
	RAPS- B (2*220)	440	262	195	397	6.30	262	6.30	0.00
	RAPS- C (2*220)	440	410	215	218	4.51	188	9.84	-5.33
	Sub Total (B)	1320	1060	798	1003	20.12	838	25.45	-5.33
C. NHPC	Chamera I HPS (3*180)	540	534	538	0	6.58	274	6.82	-0.23
	Chamera II HPS (3*100)	300	300	308	277	7.31	305	7.06	0.25
	Chamera III HPS (3*77)	231	231	235	105	4.33	181	4.23	0.11
	Bairasuli HPS(3*60)	180	179	177	178	3.85	160	3.86	-0.01
	Salal-HPS (6*115)	690	397	460	440	9.38	391	9.46	-0.08
	Tanakpur-HPS (3*40)	94	51	61	55	1.25	52	1.20	0.05
	Uri-I HPS (4*120)	480	444	474	474	11.19	466	10.70	0.49
	Uri-II HPS (4*60)	240	0	0	0	0.00	0	0.00	0.00
	Dhauliganga-HPS (4*70)	280	210	209	0	2.22	93	2.20	0.03
	Dulhasti-HPS (3*130)	390	387	409	110	7.23	301	7.00	0.23
	Sewa-II HPS (3*40)	120	119	130	130	3.08	128	2.85	0.23
	Parbati 3 (4*130)	520	130	128	0	1.86	77	1.82	0.04
	Sub Total (C)	4065	2981	3129	1770	58	2429	57	1
D. SJVNL	NJPC (6*250)	1500	1605	1607	0	12.37	516	12.30	0.07
	Rampur HEP (4*68.67)	275	405	420	0	3.41	142	3.31	0.10
	Sub Total (D)	1775	2010	2027	0	15.79	658	15.62	0.17
E. THDC	Tehri HPS (4*250)	1000	744	561	0	6.36	265	6.40	-0.04
	Koteshwar HPS (4*100)	400	117	299	0	2.84	118	2.80	0.04
	Sub Total (E)	1400	861	860	0	9.20	383	9.20	0.00
F. BBMB	Bhakra HPS (3*108+2*126+6*157)	1514	478	870	387	11.65	485	11.48	0.17
	Dehar HPS (6*165)	990	480	495	495	11.63	485	11.52	0.11
	Pong HPS (6*66)	396	22	186	0	0.45	19	0.52	-0.07
	Sub Total (F)	2900	980	1551	882	23.73	989	23.52	0.22
G. IPP(s)/JV(s)	ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	97	0	0.70	29	0.67	0.02
	KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	850	0	6.41	267	6.48	-0.07
	Malana Stg-II HPS (2*50)	100	0	0	0	0.00	0	0.00	0.00
	Shree Cement TPS (2*150)	300	0	297	156	5.69	237	5.47	0.22
	Budhil HPS(IPP)	70	0	0	0	0.00	0	0.71	-0.71
	Sub Total (G)	1662	0	1244	156	12.80	533	13.33	-0.53
H. Total Regional Entities (A-G)		24434	17660	16738	10095	296.95	12373	298.67	-1.72

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	3.43	143
	Guru Nanak Dev TPS(Bhatinda) (4*110)	440	110	110	2.23	93
	Guru Hargobind Singh TPS(L.mbt) (2*210+2*250)	920	371	346	8.54	356
	Goindwal(GVK)		0	0	0.00	0
	Rajpara (2*700)	1400	685	648	15.75	656
	Talwandi Saboo (1*660)	660	342	340	7.38	307
	Thermal (Total)	4680	1668	1604	37.32	1555
	Total Hydro	1148	273	280	6.43	268
	Total Punjab	5828	1941	1884	43.75	1823
	Haryana	Panipat TPS (4*110+2*210+2*250)	1367	0	0	0.00
DCRTPP (Yamuna nagar) (2*300)		600	0	202	0.55	23
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	1252	759	21.20	883
Thermal (Total)		4944	1252	961	21.75	906
Total Hydro		62	19	18	0.54	23
Total Haryana		5006	1271	979	22.29	929
Rajasthan		kota TPS (2*110+2*195+3*210)	1240	871	872	20.60
	suratgarh TPS (6*250)	1500	569	568	13.40	558
	Chabra TPS (3*250)	750	712	549	16.30	679
	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	191	160	4.40	183
	RAPS A (NPC) (1*100+1*200)	300	160	165	4.10	171
	Barsingsar (NLC) (2*125)	250	198	197	4.60	192
	Giral LTPS (2*125)	250	78	78	1.30	54
	Rajwest LTPS (IPP) (8*135)	1080	644	446	16.40	683
	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	525	460	11.20	467
	Thermal (Total)	8026	3948	3495	92	3846
	Total Hydro	550	58	20	0.80	33
	Wind power	2798	62	311	5.30	221
	Biomass	99	25	25	0.60	25
	Solar	730	0	0	0.14	6
	Renewable/Others (Total)	3627	87	336	6.04	252
	Total Rajasthan	12203	4093	3851	99.14	4131
UP	Anpara TPS (3*210+2*500)	1630	1271	1328	29.63	1235
	Obra TPS (2*50+2*94+5*200)	1194	470	466	10.97	457
	Paricha TPS (2*110+2*220+2*250)	1140	588	567	14.17	590
	Panki TPS (2*105)	210	140	68	2.98	124
	Harduaganj TPS (1*60+1*105+2*250)	665	166	158	4.07	170
	Tanda TPS (NTPC) (4*110)	440	281	285	7.28	303
	Roza TPS (IPP) (4*300)	1200	756	765	18.42	768
	Anpara-C (IPP) (2*600)	1200	302	540	9.58	399
	Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)	450	0	0	0.00	0
	Thermal (Total)	8129	3974	4177	97.10	4046
	Vishnuparyag HPS (IPP)	400	108	102	2.56	107
	Other Hydro	527	111	78	2.60	108
	Cogeneration	981	800	800	19.20	800
	Total UP	10037	4993	5157	121.45	4954
	Uttarakhand	Total Hydro	1398	536	460	12.35
Total Uttarakhand		1398	536	460	12.35	515
Delhi	Raighat TPS (2*67.5)	135	46	48	0.99	41
	Delhi Gas Turbine (6x30 + 3x34)	282	77	77	1.90	79
	Pragati Gas Turbine (2x104+ 1x122)	330	153	157	3.73	155
	Rithala GPS (3*36)	95	0	0	0.00	0
	Bawana GPS (6*250)	1370	308	269	7.24	302
	Badarpur TPS (NTPC) (3*95+2*210)	705	234	237	4.85	202
	Thermal (Total)	2917	818	788	18.72	780
Total Delhi	2917	818	788	18.72	780	
HP	Baspa HPS (IPP) (2*150)	300	84	0	1.12	47
	Malana HPS (IPP) (2*43)	86	13	0	0.52	22
	Other Hydro	728	415	432	10.01	417
	Total HP	1114	512	432	11.65	485
J & K	Baqilhar HPS (IPP) (3*150)	450	440	436	10.54	439
	Other Hydro/IPP	436	94	76	2.14	89
	Gas/Diesel/Others	209	0	0	0.00	0
	Total J & K	1094	534	512	12.69	529
Total State Control Area Generation		39597	14698	14063	342.03	14145
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			3995	980	65.78	2741
Total Regional Availability(Gross)		64032	35430	25139	704.76	29259

IV. Total Hydro Generation:

Regional Entities Hydro	11432	8515	2652	114.12	4755
State Control Area Hydro	5684	2043	1800	49.61	1960
Total Regional Hydro	17116	10558	4452	163.72	6715

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	-500	-500	0	500	0.00	12.11	-12.11
Gwalior-Agra (D/C)	1320	531	1610	0	26.15	0.00	26.15
Zerda-Kankroli	-168	-234	0	343	0.00	5.76	-5.76
Zerda-Bhinmal	-115	-185	0	288	0.00	4.24	-4.24
Malanpur-Auraiya	-10	-83	0	84	0.00	1.31	-1.31
Badod-Kota/Morak	-58	-29	56	79	0.00	0.08	-0.08
Mundra-Mohindergarh(HVDC)	1502	1201	1509	0	32.32	0.00	32.32
Vindhychal - Rihand	480	455	504	0	11.07	0.00	11.07
Sub Total WR	2451	1156			69.54	23.50	46.04
Pusauli Bypass	-306	-620	0	670	0.00	8.08	-8.08
MZP- GKP (D/C)	254	-28	287	72	1.89	0.00	1.89
Patna-Balia(D/C)	769	348	826	0	14.07	0.00	14.07
B'Sharif-Balia (D/C)	114	-25	118	25	0.57	0.00	0.57
Pusauli-Balia	68	60	115	0	0.54	0.00	0.54
Gaya-Fatehpur (765 Kv)	334	-30	405	0	4.62	0.00	4.62
Pusauli-Sahupuri	147	178	193	0	3.59	0.00	3.59
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-38	-25	0	40	0.00	0.67	-0.67
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	202	-34	291	0	3.22	0.00	3.22
Sub Total ER	1544	-176			28.48	8.75	19.74
Total IR Exch	3995	980			98.02	32.24	65.78

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
17.24	0.21	17.46	3.13	-2.38	3.20	-0.45	2.82	-2.82

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
26.61	40.85	67.45	19.74	46.04	65.78	-6.87	5.20	-1.67

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	0.32	5.29	34.40	55.88	22.64	14.93	2.03	0.00

Frequency (Hz)				Average Frequency	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX	MIN
Freq	Time	Freq	Time	Hz	(Hz)	(Hz)		
50.27	2.56	49.73	0.07	50.03	0.07	0.08	50.27	0

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	410	02:48	405	14:57	0.0	0.0	0.0	0.0
Gorakhpur	400	415	13:03	396	06:13	0.0	0.0	0.0	0.0
Bareilly	400	430	02:57	410	18:59	0.0	0.0	54.8	0.0
Kanpur	400	425	02:56	407	19:07	0.0	0.0	18.8	0.0
Dadri	400	432	02:58	410	18:56	0.0	0.0	38.6	2.8
Ballabgarh	400	438	02:47	410	19:08	0.0	0.0	50.9	22.4
Bawana	400	431	00:15	409	19:06	0.0	0.0	39.6	1.1
Bassi	400	421	02:47	395	19:21	0.0	0.0	1.0	0.0
Hissar	400	424	00:14	401	19:06	0.0	0.0	17.8	0.0
Moga	400	426	00:14	408	19:08	0.0	0.0	25.7	0.0
Abdullapur	400	430	00:15	396	19:02	0.0	0.0	40.0	0.0
Nalagarh	400	435	02:52	408	19:07	0.0	0.0	56.8	18.6
Kishenpur	400	234	01:10	216	19:15	100.0	100.0	0.0	0.0
Wagoora	400	416	04:02	381	19:26	0.0	19.1	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	02:52	751	19:11	0.0	0.0	0.0	0.0
Balia	765	778	13:02	755	19:07	0.0	0.0	0.0	0.0
Moga	765	810	00:15	775	19:12	0.0	0.0	23.2	0.0
Agra	765	798	02:53	766	19:11	0.0	0.0	0.0	0.0
Bhiwani	765	811	00:00	782	06:43	0.0	0.0	40.3	0.0
Unnao	765	779	02:54	755	19:11	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	480.43	468.02	482.30	511.55	416.17	357.39
Pong	426.72	384.05	402.68	281.22	402.24	273.51	118.48	34.21
Tehri	829.79	740.04	773.95	251.76	778.00	297.05	100.37	181.00
Koteshwar	612.50	598.50	611.20	5.10	611.27	5.20	181.00	188.00
Chamera-I	760.00	748.75	758.85	0.00	0.00	0.00	306.15	178.61
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	509.39	2.42	513.12	1.72	277.27	113.35

* 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	-322	321	0	-282	192	0	-7.03	6.46	-0.57
Delhi	-657	59	-41	-463	467	-41	-11.66	4.73	-6.92
Haryana	65	114	0	61	110	0	0.93	0.79	1.72
HP	161	-372	0	-86	-558	0	2.55	-10.07	-7.52
J&K	529	-502	0	316	-67	0	9.43	-5.31	4.13
CHD	0	0	0	0	-24	0	0.00	-0.14	-0.14
Rajasthan	-4	569	2	0	501	2	-0.04	11.61	11.57
UP	124	0	0	142	0	0	2.62	0.00	2.62
Uttarakhand	90	107	49	158	247	49	3.45	5.08	8.53
Total	-13	296	10	-153	867	10	0.26	13.16	13.41

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	-277	-323	369	3	0	0
Delhi	-402	-657	488	-61	-41	-41
Haryana	65	13	118	-297	0	0
HP	167	-86	-150	-859	0	0
J&K	529	316	-54	-502	0	0
CHD	0	0	0	-36	0	0
Rajasthan	0	-4	572	163	2	2
UP	176	42	0	0	0	0
Uttarakhand	158	90	257	98	49	49

XI. System Constraints:**XII. Grid Disturbance / Any Other Significant Event:****XIII. Weather Conditions For 30.03.2015 :****XIV. Synchronisation of new generating units :****XV. Synchronisation of new 220 / 400 / 765 KV lines and energising of bus / /substation :**

125 MVAR bus reactor first time charged at 23:53 hrs at 400 kV shahjahaanpur (powergrid)

400 kV Dehar Panchkula line first time charged at 00:09 hrs on 31-03-2015 after LILO of 400 kV Dehar-Panipat line at 400 kV Panchkula (PG S/S).

XVI. Tripping of lines in pooling stations :**XVII. Complete generation loss in a generating station :**