

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 21.03.2015
Date of Reporting : 22.03.2015

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
33779	1578	35356	49.88	26995	1138	28133	50.04	733.2	106.00

* 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	37.87	6.40		44.27	47.80	47.00	-0.80	91.28	0.00
Haryana	34.33	0.44		34.77	66.95	66.89	-0.06	101.66	0.00
Rajasthan	93.59	1.68	4.30	99.58	63.48	66.75	3.27	166.33	0.00
Delhi	10.52			10.52	45.30	47.56	2.26	58.08	0.79
UP	122.70	4.80		127.50	86.71	87.29	0.58	214.79	35.19
Uttarakhand		10.41		10.41	21.76	23.22	1.47	33.63	0.63
HP		8.68		8.68	14.57	15.51	0.94	24.19	0.00
J & K		10.60	0.00	10.60	29.34	-0.07	-0.07	39.94	69.39
Chandigarh				0.00	3.24	3.28	0.27	3.28	0.00
Total	299.01	43.00	4.30	346.32	379.22	386.86	7.86	733.18	106.00

* 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	4472	0	-24	-236	3378	0	97	-275	4474
Haryana	5106	0	-319	192	2896	0	5	-151	5609
Rajasthan	7618	0	211	652	6616	0	-22	642	7810
Delhi	2655	0	-138	-291	1696	0	228	-776	3032
UP	9453	1210	153	156	8808	870	-180	125	10322
Uttarakhand	1649	75	87	522	1196	0	37	315	1695
HP	991	0	-116	-249	802	0	118	146	1326
J&K	1658	293	-8	278	1516	268	53	239	1903
Chandigarh	177	0	-22	0	87	0	11	-10	177
Total	33779	1578	-175	1023	26995	1138	348	253	35940

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

Diversity is 1.01

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	1864	1682	2075	48.02	2001	44.52	3.49
	Rihand I STPS (2*500)	1000	866	944	933	22.69	946	20.74	1.95
	Rihand II STPS (2*500)	1000	483	518	515	12.40	517	11.26	1.14
	Rihand III STPS (2*500)	1000	976	995	991	24.29	1012	23.01	1.28
	Dadri I STPS (4*210)	840	815	674	618	17.73	739	16.99	0.74
	Dadri II STPS (2*490)	980	480	451	391	9.85	410	9.66	0.19
	Unchahar I TPS (2*210)	420	405	416	321	9.73	406	9.14	0.60
	Unchahar II TPS (2*210)	420	403	422	302	9.76	407	8.91	0.84
	Unchahar III TPS (1*220)	210	201	193	146	4.85	202	4.42	0.43
	ISTPP (Jhajhar) (3*500)	1500	1500	961	731	18.62	776	19.83	-1.21
	Dadri GPS (4*130.19+2*154.51)	830	837	381	420	9.41	392	9.54	-0.12
	Anta GPS (3*88.71+1*153.2)	419	178	0	0	0.00	0	0.00	0.00
	Auraiya GPS (4*111.19+2*109.30)	663	660	159	168	3.83	160	3.79	0.04
	Dadri Solar	5	1	0	0	0.03	1	0.03	0.00
	Unchahar Solar	10	3	0	0	0.04	2	0.06	-0.02
	Singrauli Solar	15	3	0	0	0.07	3	0	0.00
	Sub Total (A)	11312	9674	7796	7611	191	7971	182	9
B. NPC	NAPS (2*220)	440	395	422	435	9.35	389	9.48	-0.13
	RAPS- B (2*220)	440	408	445	449	9.65	402	9.79	-0.14
	RAPS- C (2*220)	440	410	439	448	9.60	400	9.84	-0.24
	Sub Total (B)	1320	1213	1306	1332	28.60	1192	29.11	-0.51
C. NHPC	Chamera I HPS (3*180)	540	534	552	0	5.16	215	4.98	0.18
	Chamera II HPS (3*100)	300	300	302	0	2.66	111	2.58	0.09
	Chamera III HPS (3*77)	231	231	228	0	1.33	56	1.28	0.05
	Bairasuli HPS(3*60)	180	179	180	123	3.19	133	3.10	0.09
	Salal-HPS (6*115)	690	430	460	456	10.55	439	10.32	0.23
	Tanakpur-HPS (3*40)	94	28	37	23	0.77	32	0.68	0.09
	Uri-I HPS (4*120)	480	461	468	474	11.32	472	11.06	0.26
	Uri-II HPS (4*60)	240	0	0	0	0.00	0	0.00	0.00
	Dhauliganga-HPS (4*70)	280	190	210	0	1.11	46	1.05	0.06
	Dulhasti-HPS (3*130)	390	387	399	21	2.98	124	2.70	0.28
	Sewa-II HPS (3*40)	120	122	130	130	3.09	129	2.93	0.16
	Parbati 3 (4*130)	520	260	270	0	0.63	26	0.59	0.05
	Sub Total (C)	4065	3122	3235	1226	43	1783	41	2
D. SJVNL	NJPC (6*250)	1500	1605	1609	0	7.21	300	6.99	0.22
	Rampur HEP (4*68.67)	275	376	295	0	1.88	78	1.91	-0.03
	Sub Total (D)	1775	1981	1904	0	9.09	379	8.89	0.19
E. THDC	Tehri HPS (4*250)	1000	576	583	0	6.72	280	6.60	0.12
	Koteshwar HPS (4*100)	400	117	303	91	2.88	120	2.80	0.08
	Sub Total (E)	1400	693	886	91	9.60	400	9.40	0.20
F. BBMB	Bhakra HPS (3*108+2*126+6*157)	1514	413	790	319	10.16	423	9.91	0.25
	Dehar HPS (6*165)	990	274	495	165	6.52	272	6.59	-0.07
	Pong HPS (6*66)	396	6	122	0	0.13	5	0.15	-0.02
	Sub Total (F)	2900	694	1407	484	16.81	700	16.65	0.16
G. IPP(s)/JV(s)	ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	76	0	0.36	15	0.34	0.02
	KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	738	0	3.84	160	3.72	0.12
	Malana Stg-II HPS (2*50)	100	0	0	0	0.00	0	0.00	0.00
	Shree Cement TPS (2*150)	300	0	148	91	3.19	133	3.16	0.03
	Budhil HPS(IPP)	70	0	0	0	0.00	0	0.28	-0.28
	Sub Total (G)	1662	0	962	91	7.40	308	7.51	-0.11
H. Total Regional Entities (A-G)		24434	17376	17496	10836	305.59	12733	294.79	10.81

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	210	4.23	176
	Guru Nanak Dev TPS(Bhatinda) (4*110)	440	100	0	0.98	41
	Guru Hargobind Singh TPS(L.mbt) (2*210+2*250)	920	383	212	6.02	251
	Goindwal(GVK)		0	0	0.00	0
	Rajpura (2*700)	1400	700	690	15.82	659
	Talwandi Saboo (1*660)	660	436	338	10.83	451
	Thermal (Total)	4680	1829	1450	37.87	1578
	Total Hydro	1148	280	274	6.40	267
Total Punjab	5828	2109	1724	44.27	1845	
Haryana	Panipat TPS (4*110+2*210+2*250)	1367	0	0	0.00	0
	DCRTPP (Yamuna nagar) (2*300)	600	277	246	6.30	263
	Faridabad GPS (NTPC)	432	386	295	8.38	349
	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	940	751	19.65	819
	Thermal (Total)	4944	1603	1292	34.33	1430
	Total Hydro	62	12	16	0.44	18
	Total Haryana	5006	1615	1308	34.77	1449
	Rajasthan	kota TPS (2*110+2*195+3*210)	1240	948	936	22.15
suratgarh TPS (6*250)		1500	872	886	21.00	875
Chabra TPS (3*250)		750	664	658	15.91	663
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	131	214	4.31	179
RAPS A (NPC) (1*100+1*200)		300	166	159	4.05	169
Barsingsar (NLC) (2*125)		250	193	193	4.56	190
Giral LTPS (2*125)		250	80	80	1.63	68
Rajwest LTPS (IPP) (8*135)		1080	845	845	19.99	833
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	0	0	0.00	0
Thermal (Total)		8026	3899	3971	94	3900
Total Hydro		550	178	23	1.68	70
Wind power		2798	82	80	3.56	148
Biomass		99	27	27	0.64	27
Solar		730	1	0	0.11	5
Renewable/Others (Total)		3627	110	107	4.30	179
Total Rajasthan	12203	4187	4101	99.58	4149	
UP	Anpara TPS (3*210+2*500)	1630	1210	1231	29.00	1208
	Obra TPS (2*50+2*94+5*200)	1194	467	473	11.20	467
	Paricha TPS (2*110+2*220+2*250)	1140	564	702	15.80	658
	Panki TPS (2*105)	210	135	131	2.90	121
	Harduaganj TPS (1*60+1*105+2*250)	665	201	230	5.10	213
	Tanda TPS (NTPC) (4*110)	440	352	391	8.80	367
	Roza TPS (IPP) (4*300)	1200	216	266	5.70	238
	Anpara-C (IPP) (2*600)	1200	1076	1074	25.00	1042
	Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)	450	0	0	0.00	0
	Thermal (Total)	8129	4221	4498	103.50	4313
	Vishnuparyag HPS (IPP)	400	77	78	1.90	79
	Other Hydro	527	172	48	2.90	121
	Cogeneration	981	800	800	19.20	800
	Total UP	10037	5270	5424	127.50	5233
Uttarakhand	Total Hydro	1398	474	403	10.41	434
	Total Uttarakhand	1398	474	403	10.41	434
Delhi	Raighat TPS (2*67.5)	135	0	44	0.66	27
	Delhi Gas Turbine (6x30 + 3x34)	282	78	82	1.80	75
	Pragati Gas Turbine (2x104+ 1x122)	330	149	157	3.42	143
	Rithala GPS (3*36)	95	0	0	0.00	0
	Bawana GPS (6*250)	1370	311	0	3.48	145
	Badarpur TPS (NTPC) (3*95+2*210)	705	64	13	1.16	48
	Thermal (Total)	2917	602	296	10.52	439
Total Delhi	2917	602	296	10.52	439	
HP	Baspa HPS (IPP) (2*150)	300	0	0	0.90	37
	Malana HPS (IPP) (2*43)	86	21	0	0.24	10
	Other Hydro	728	310	238	7.53	314
	Total HP	1114	331	238	8.68	361
J & K	Baqilhar HPS (IPP) (3*150)	450	444	320	8.51	355
	Other Hydro/IPP	436	95	85	2.08	87
	Gas/Diesel/Others	209	0	0	0.00	0
	Total J & K	1094	539	405	10.60	442
Total State Control Area Generation		39597	15127	13899	346.32	14351
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			4247	3016	105.93	4414
Total Regional Availability(Gross)		64032	36870	27751	757.85	31498

IV. Total Hydro Generation:

Regional Entities Hydro	11432	8246	1802	82.49	3437
State Control Area Hydro	5684	1986	1407	43.00	1713
Total Regional Hydro	17116	10232	3209	125.49	5150

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	-400	0	500	0.00	8.37	-8.37
Gwalior-Agra (D/C)	1302	1030	2090	0	38.54	0.00	38.54
Zerda-Kankroli	-212	-336	0	336	0.00	5.56	-5.56
Zerda-Bhinmal	-121	-261	0	274	0.00	3.68	-3.68
Malanpur-Auraiya	-56	-64	0	75	0.00	0.96	-0.96
Badod-Kota/Morak	-68	-77	5	28	0.00	1.05	-1.05
Mundra-Mohindergarh(HVDC)	2302	2302	2506	0	57.33	0.00	57.33
Vindhychal - Rihand	499	508	510	0	12.10	0.00	12.10
Sub Total WR	3346	2702			107.96	19.61	88.35
Pusauli Bypass	-573	-629	0	645	0.00	14.03	-14.03
MZP- GKP (D/C)	116	58	199	0	2.63	0.00	2.63
Patna-Balia(D/C)	750	581	761	0	15.58	0.00	15.58
B'Sharif-Balia (D/C)	32	-67	67	67	0.00	0.11	-0.11
Pusauli-Balia	-64	-26	40	92	0.00	0.39	-0.39
Gaya-Fatehpur (765 Kv)	281	124	345	0	6.09	0.00	6.09
Pusauli-Sahupuri	182	173	182	0	3.51	0.00	3.51
K'nasa-Sahupuri	0	0	0	0	0.48	0.96	-0.48
Son Ngr-Rihand	-30	-33	0	40	0.00	0.77	-0.77
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	207	133	323	0	5.56	0.00	5.56
Sub Total ER	901	314			33.85	16.26	17.59
Total IR Exch	4247	3016			141.81	35.87	105.93

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
24.89	0.14	25.04	4.41	-1.32	0.61	14.58	0.55	-0.55

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
30.61	70.69	101.30	17.59	88.35	105.93	-13.03	17.66	4.63

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	1.98	15.42	46.80	85.06	48.98	3.47	0.69	0.08	0.00

←----- 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				
50.22	18.02	49.59	18.53	49.90	0.19	0.10	50.10	49.82

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 (m³/s)	Usage (m³/s)
Bhakra	513.59	445.62	480.68	474.82	483.35	544.27	220.45	296.85
Pong	426.72	384.05	402.18	266.33	403.05	288.96	124.20	11.58
Tehri	829.79	740.04	776.75	282.71	782.50	352.42	36.45	187.00
Koteshwar	612.50	598.50	611.05	5.20	610.80	4.95	187.00	192.00
Chamera-I	760.00	748.75	757.33	0.00	0.00	0.00	176.44	139.49
Rihand	268.22	252.98	0.00	0.00	0.00	0.00	0.00	0.00
RPS	352.80	343.81	1137.55	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	507.70	3.25	510.78	1.82	320.95	144.02

* 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	-319	44	0	-282	45	0	-6.97	2.38	-4.59
Delhi	-657	-79	-41	-438	188	-41	-11.43	1.49	-9.94
Haryana	23	-174	0	36	156	0	0.05	-0.16	-0.10
HP	162	-16	0	42	-292	0	3.33	-2.48	0.84
J&K	543	-304	0	291	-14	0	9.47	-3.38	6.09
CHD	0	-10	0	0	0	0	0.00	-0.12	-0.12
Rajasthan	0	640	2	123	527	2	1.44	13.32	14.76
UP	125	0	0	156	0	0	2.65	0.00	2.65
Uttarakhand	90	207	18	158	323	41	3.45	7.09	10.54
Total	-33	306	-20	86	935	2	1.99	18.13	20.12

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	-274	-321	314	0	0	0
Delhi	-392	-657	509	-79	-41	-41
Haryana	36	-25	179	-230	0	0
HP	168	42	57	-617	0	0
J&K	543	291	0	-318	0	0
CHD	0	0	0	-20	0	0
Rajasthan	437	0	942	437	2	2
UP	172	35	0	0	0	0
Uttarakhand	158	90	351	151	49	11

XI. System Constraints:**XII. Grid Disturbance / Any Other Significant Event:****XIII. Weather Conditions For 21.03.2015 :**
Normal.**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 :**