

पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिस्ट की पूर्ण स्वामित्व प्राप्त महालयक कंपनी)



उत्तरी क्षेत्रीय भार प्रेषण केंद्र

CIN: U40105DL2009GOI188682

Power Supply Position in Northern Region for 22.02.2015
Date of Reporting : 23.02.2015

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
34868	1203	36070	49.94	29621	1174	30795	50.10	788.5	30.99

* 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	Actual Drawal	UI	Consumption	Shortages *
	Thermal	Hydro	Renewable/others \$	Total	(Net MU)	(Net MU)	(Net MU)	(Net MU)	(MU)
Punjab	33.79	10.63		44.42	43.69	43.39	-0.30	87.80	0.00
Haryana	52.07	0.47		52.53	53.52	51.98	-1.54	104.51	0.00
Rajasthan	129.79	4.55	6.98	141.32	72.69	73.45	0.77	214.77	0.00
Delhi	17.31			17.31	38.99	38.81	-0.18	56.12	0.00
UP	137.00	2.00		139.00	89.54	86.71	-2.83	225.71	23.47
Uttarakhand		10.13		10.13	22.06	22.23	0.17	32.36	0.00
HP		6.87		6.87	16.91	15.13	-1.78	22.00	0.08
J & K		7.59	0.00	7.59	36.38	34.56	-1.82	42.15	7.44
Chandigarh				0.00	3.25	3.05	0.27	3.05	0.00
Total	369.96	42.23	6.98	419.17	377.01	369.31	-7.24	788.47	30.99

* 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	3882	0	-231	-61	3222	0	114	-165	4414
Haryana	5081	0	-137	-494	3602	0	-15	-459	5622
Rajasthan	8849	0	-36	755	8845	0	114	838	9848
Delhi	2518	0	-235	-462	1596	0	-34	-869	3075
UP	9891	860	77	36	8696	880	-460	68	10466
Uttarakhand	1623	0	29	451	1184	0	150	300	1693
HP	946	4	-278	152	746	4	-39	300	1210
J&K	1919	339	-63	573	1643	290	-112	635	1928
Chandigarh	159	0	-28	0	87	0	-9	-31	174
Total	34868	1203	-902	950	29621	1174	-291	617	35930

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

Diversity is 1.07

III. Regional Entities :

Entity	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	1930	2080	1833	48.07	2003	44.57	3.49
	Rihand I STPS (2*500)	1000	873	860	760	20.48	853	18.62	1.86
	Rihand II STPS (2*500)	1000	900	846	677	20.12	839	18.56	1.57
	Rihand III STPS (2*500)	1000	966	935	781	21.25	885	19.79	1.46
	Dadri I STPS (4*210)	840	815	605	560	14.93	622	13.96	0.97
	Dadri II STPS (2*490)	980	980	747	657	17.47	728	17.00	0.47
	Unchahar I TPS (2*210)	420	405	312	269	7.04	293	7.26	-0.23
	Unchahar II TPS (2*210)	420	403	305	275	6.98	291	6.80	0.18
	Unchahar III TPS (1*220)	210	201	152	139	3.47	144	3.46	0.01
	ISTPP (Jhajhar) (3*500)	1500	1500	598	597	14.29	596	15.42	-1.12
	Dadri GPS (4*130, 19+2*154.51)	830	844	153	181	3.89	162	3.91	-0.01
	Anta GPS (3*88.71+1*153.2)	419	428	246	212	5.29	221	5.43	-0.14
	Auraiya GPS (4*111.19+2*109.30)	663	510	144	163	3.59	150	3.67	-0.07
	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	2	0	0	0.05	2	0	0.01
	Sub Total (A)	11312	10760	7983	7104	187	7791	179	8
B. NPC	NAPS (2*220)	440	386	426	430	9.32	388	9.26	0.06
	RAPS-B (2*220)	440	407	446	453	9.75	406	9.77	-0.02
	RAPS-C (2*220)	440	390	439	440	9.52	396	9.36	0.16
	Sub Total (B)	1320	1183	1311	1323	28.59	1191	28.39	0.20
C. NHPC	Chamera I HPS (3*180)	540	534	550	0	5.77	241	5.60	0.17
	Chamera II HPS (3*100)	300	200	210	0	1.60	67	1.55	0.05
	Chamera III HPS (3*77)	231	231	228	0	0.08	3	0.77	-0.69
	Bairasuli HPS(3*60)	180	179	124	61	2.01	84	1.89	0.12
	Salal-HPS (6*115)	690	210	230	230	5.49	229	5.03	0.46
	Tanakpur-HPS (3*40)	94	22	32	16	0.56	23	0.52	0.04
	Uri-I HPS (4*120)	480	318	350	311	7.98	332	7.62	0.35
	Uri-II HPS (4*60)	240	0	0	0	0.00	0	0.00	0.00
	Dhauliganga-HPS (4*70)	280	140	139	0	0.79	33	0.70	0.09
	Dulhasti-HPS (3*130)	390	310	270	0	2.27	95	2.20	0.07
	Sewa-II HPS (3*40)	120	109	127	108	2.77	115	2.61	0.16
	Parbati 3 (4*130)	520	167	264	0	0.68	28	0.65	0.03
	Sub Total (C)	4065	2418	2524	726	30	1250	29	1
	D. SJVNL	NJPC (6*250)	1500	1080	1086	0	6.38	266	6.33
Rampur HEP (4*68.67)		275	370	298	0	1.77	74	1.77	0.00
Sub Total (D)		1775	1450	1384	0	8.15	340	8.09	0.06
E. THDC	Tehri HPS (4*250)	1000	848	852	0	8.93	372	8.80	0.13
	Koteswar HPS (4*100)	400	154	302	100	3.72	155	3.70	0.02
	Sub Total (E)	1400	1002	1154	100	12.65	527	12.50	0.15
F. BBMB	Bhakra HPS (3*108+2*126+6*157)	1514	734	1146	493	17.73	739	17.62	0.10
	Dehar HPS (6*165)	990	320	330	330	7.60	317	7.68	-0.08
	Pong HPS (6*66)	396	116	232	0	2.67	111	2.79	-0.12
	Sub Total (F)	2900	1171	1708	823	27.99	1166	28.09	-0.10
G. IPP(s)/JV(s)	ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	0	0	0.32	13	0.30	0.02
	KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	0	0	3.17	132	3.17	0.00
	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	110	2.47	103	2.43	0.04
	Budhil HPS(IPP)	70	0	0	0	0.07	3	0.07	0.00
Sub Total (G)	1662	0	102	110	6.03	251	5.98	0.06	
H. Total Regional Entities (A-G)	24434	17984	16166	10186	300.39	12516	290.77	9.63	

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	330	320	7.43	310
	Guru Nanak Dev TPS(Bhatinda) (4*110)	440	100	100	2.38	99
	Guru Hargobind Singh TPS(L.mbt) (2*210+2*250)	920	332	352	8.02	334
	Goindwal(GVK)		0	0	0.00	0
	Rajpura (2*700)	1400	356	344	8.44	351
	Talwandi Saboo (1*660)	660	356	335	7.52	314
	Thermal (Total)	4680	1474	1451	33.79	1408
	Total Hydro	1148	441	380	10.63	443
Total Punjab	5828	1915	1831	44.42	1851	
Haryana	Panipat TPS (4*110+2*210+2*250)	1367	215	222	5.16	215
	DCRTPP (Yamuna nagar) (2*300)	600	243	246	5.89	245
	Faridabad GPS (NTPC)	432	160	132	3.71	154
	RGTPP (khedar) (IPP) (2*600)	1200	742	744	18.75	781
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP) (2*660)	1320	850	742	18.57	774
	Thermal (Total)	4944	2210	2086	52.07	2169
	Total Hydro	62	15	16	0.47	19
	Total Haryana	5006	2225	2102	52.53	2189
	Rajasthan	kota TPS (2*110+2*195+3*210)	1240	1042	1062	25.84
suratgarh TPS (6*250)		1500	952	1115	26.22	1092
Chabra TPS (3*250)		750	796	788	19.42	809
Dholpur GPS (3*110)		330	110	111	2.83	118
Ramgarh GPS (1*3 + 1*35.5 +2*37.5 +1*110 +1*50)		271	54	51	1.39	58
RAPS A (NPC) (1*100+1*200)		300	166	153	4.06	169
Barsingsar (NLC) (2*125)		250	188	190	4.38	182
Giral LTPS (2*125)		250	0	0	0.00	0
Rajwast LTPS (IPP) (8*135)		1080	718	840	18.52	772
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	1180	972	27.14	1131
Thermal (Total)		8026	5206	5282	130	5408
Total Hydro		550	204	105	4.55	190
Wind power		2798	129	544	6.58	274
Biomass		99	14	14	0.33	14
Solar		730	1	0	0.07	3
Renewable/Others (Total)		3627	144	558	6.98	291
Total Rajasthan		12203	5554	5945	141.32	5888
UP		Anpara TPS (3*210+2*500)	1630	1441	1415	33.60
	Obra TPS (2*50+2*94+5*200)	1194	356	356	8.40	350
	Paricha TPS (2*110+2*220+2*250)	1140	614	632	15.10	629
	Panki TPS (2*105)	210	140	140	3.40	142
	Harduaganj TPS (1*60+1*105+2*250)	665	227	369	7.90	329
	Tanda TPS (NTPC) (4*110)	440	308	322	8.10	338
	Roza TPS (IPP) (4*300)	1200	779	779	18.80	783
	Anpara-C (IPP) (2*600)	1200	813	711	22.50	938
	Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)	450	0	0	0.00	0
	Thermal (Total)	8129	4678	4724	117.80	4908
	Vishnuparyag HPS (IPP)	400	67	66	0.00	0
	Other Hydro	527	81	57	2.00	83
	Cogeneration	981	800	800	19.20	800
	Total UP	10037	5626	5647	139.00	5792
Uttarakhand	Total Hydro	1398	502	286	10.13	422
	Total Uttarakhand	1398	502	286	10.13	422
Delhi	Raighat TPS (2*67.5)	135	32	35	0.83	35
	Delhi Gas Turbine (6x30 + 3x34)	282	77	79	1.88	78
	Pragati Gas Turbine (2x104+ 1x122)	330	159	162	3.77	157
	Rithala GPS (3*36)	95	0	0	0.00	0
	Bawana GPS (6*250)	1370	304	272	6.96	290
	Badarpur TPS (NTPC) (3*95+2*210)	705	163	158	3.88	162
	Thermal (Total)	2917	735	706	17.31	721
Total Delhi	2917	735	706	17.31	721	
HP	Baspa HPS (IPP) (2*150)	300	50	30	0.91	38
	Malana HPS (IPP) (2*43)	86	0	0	0.22	9
	Other Hydro	728	319	259	5.74	239
	Total HP	1114	369	289	6.87	286
J & K	Baqilhar HPS (IPP) (3*150)	450	294	214	5.57	232
	Other Hydro/IPP	436	98	78	2.02	84
	Gas/Diesel/Others	209	0	0	0.00	0
	Total J & K	1094	392	292	7.59	316
Total State Control Area Generation		39597	17318	17098	419.17	17465
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			4940	3666	109.22	4551
Total Regional Availability(Gross)		64032	38424	30950	828.78	34533

IV. Total Hydro Generation:

Regional Entities Hydro	11432	6771	1649	82.28	3428
State Control Area Hydro	5684	2004	1425	42.23	1760
Total Regional Hydro	17116	8775	3074	124.52	5188

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	-300	0	500	0.00	9.11	-9.11
Gwalior-Agra (D/C)	1730	1337	2164	0	38.30	0.00	38.30
Zerda-Kankroli	-194	-350	0	368	0.00	5.42	-5.42
Zerda-Bhinmal	-61	-240	82	266	0.00	2.54	-2.54
Malanpur-Auraiya	-67	-120	0	138	0.00	2.40	-2.40
Badod-Kota/Morak	-64	-172	0	0	-2.83	0.00	-2.83
Mundra-Mohindergarh(HVDC)	2298	2302	2305	0	55.61	0.00	55.61
Vindhychal - Rihand	497	450	501	0	11.59	0.00	11.59
Sub Total WR	3639	2907			102.67	19.47	83.20
Pusauli Bypass	200	200	200	0	4.81	0.00	4.81
MZP- GKP (D/C)	79	49	219	82	0.76	0.00	0.76
Patna-Balia(D/C)	557	417	588	0	11.12	0.00	11.12
B'Sharif-Balia (D/C)	-20	-60	75	142	0.00	-1.53	1.53
Pusauli-Balia	68	-3	105	74	0.00	-0.12	0.12
Gaya-Fatehpur (765 Kv)	277	132	355	0	5.34	0.00	5.34
Pusauli-Sahupuri	145	121	176	0	3.03	0.00	3.03
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-38	-40	0	42	0.00	0.87	-0.87
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	33	-57	146	79	0.20	0.00	0.20
Sub Total ER	1301	759			25.26	-0.77	26.03
Total IR Exch	4940	3666			127.93	18.70	109.22

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
18.11	0.15	18.26	4.67	-0.85	11.09	3.84	0.54	-0.54

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
34.56	72.16	106.73	26.03	83.20	109.22	-8.54	11.03	2.50

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	2.01	12.95	52.17	65.27	15.67	5.45	1.32	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				
50.39	18.01	49.71	21.06	49.99	0.07	0.08	50.25	49.9

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	01:36	403	14:41	0.0	0.0	0.0	0.0
Gorakhpur	400	0	00:00	9999	00:00	0.0	0.0	0.0	0.0
Bareilly	400	424	03:00	355	09:41	0.0	0.0	11.6	0.0
Kanpur	400	418	03:01	404	12:17	0.0	0.0	0.0	0.0
Dadri	400	0	00:00	9999	00:00	100.0	100.0	0.0	0.0
Ballabgarh	400	428	03:00	411	08:37	0.0	0.0	38.2	0.0
Bawana	400	426	02:59	410	06:36	0.0	0.0	32.4	0.0
Bassi	400	422	20:54	398	08:21	0.0	0.0	0.9	0.0
Hissar	400	416	20:56	399	06:37	0.0	0.0	0.0	0.0
Moga	400	422	03:02	406	11:10	0.0	0.0	6.0	0.0
Abdullapur	400	424	17:03	396	06:41	0.0	0.0	16.6	0.0
Nalagarh	400	432	20:28	415	11:15	0.0	0.0	62.0	1.4
Kishenpur	400	422	02:59	401	18:58	0.0	0.0	8.5	0.0
Wagoora	400	404	03:24	377	19:31	4.1	46.5	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	9999	00:00	0.0	0.0	0.0	0.0
Balia	765	775	17:04	752	18:47	0.0	0.0	0.0	0.0
Moga	765	800	03:03	771	11:09	0.0	0.0	0.0	0.0
Agra	765	793	18:03	761	08:37	0.0	0.0	0.0	0.0
Bhiwani	765	804	21:54	772	06:40	0.0	0.0	5.5	0.0
Unnao	765	764	17:04	742	12:18	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	484.15	560.76	491.31	778.28	236.13	586.02
Pong	426.72	384.05	399.28	203.01	406.29	379.44	227.38	194.82
Tehri	829.79	740.04	787.05	412.00	793.60	505.00	34.74	235.00
Koteshwar	612.50	598.50	610.33	4.69	610.51	4.82	235.00	247.00
Chamera-I	760.00	748.75	759.07	0.00	0.00	0.00	117.06	155.77
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	500.89	8.97	508.53	1.51	155.97	149.96

* 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	-321	156	0	-291	230	0	-7.22	5.94	-1.29
Delhi	-688	-182	0	-476	39	-26	-11.55	-1.18	-12.72
Haryana	-608	150	0	-600	106	0	-15.78	2.76	-13.01
HP	462	-162	0	432	-280	0	11.67	-6.20	5.47
J&K	635	0	0	450	122	0	12.85	0.52	13.37
CHD	-31	0	0	0	0	0	-0.24	0.00	-0.24
Rajasthan	293	543	2	293	459	2	7.04	11.13	18.17
UP	68	0	0	36	0	0	-0.12	0.00	-0.12
Uttarakhand	268	32	0	268	169	14	6.34	3.50	9.83
Total	78	538	2	114	845	-9	2.98	16.47	19.45

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	-291	-321	353	36	0	0
Delhi	-288	-688	203	-201	0	-26
Haryana	-600	-776	158	94	0	0
HP	521	432	-137	-661	0	0
J&K	635	450	195	-143	0	0
CHD	0	-31	0	0	0	0
Rajasthan	293	293	546	159	2	-34
UP	94	-148	0	0	0	0
Uttarakhand	268	252	246	11	49	0

XI. System Constraints:**XII. Grid Disturbance / Any Other Significant Event:****XIII. Weather Conditions For 22.02.2015 :**

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 :**