

पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पॉवर सिस्टम की पूर्ण स्वामित्व प्राप्त महासक कंपनी)



उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 08.12.2014
Date of Reporting : 09.12.2014

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
38362	2168	40530	0.00	29455	835	30290	50.14	811.8	48.37

* 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	54.62	8.13		62.75	43.26	44.27	1.00	107.02	0.00
Haryana	54.92	0.28		55.20	59.24	59.30	0.07	114.50	0.07
Rajasthan	127.50	5.35	2.02	134.88	68.83	69.86	1.03	204.74	0.00
Delhi	18.27			18.27	39.81	39.14	-0.66	57.41	0.00
UP	143.30	3.16		146.46	80.71	80.77	0.05	227.23	38.12
Uttarakhand		7.60		7.60	23.31	23.60	0.29	31.21	0.45
HP		4.94		4.94	19.04	19.60	0.56	24.54	0.00
J & K		5.74	0.00	5.74	33.22	36.06	2.83	41.80	9.73
Chandigarh				0.00	3.28	3.33	0.05	3.33	0.00
Total	398.61	35.20	2.02	435.83	370.71	375.93	5.22	811.76	48.37

* 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	5263	0	85	-236	3870	0	113	-350	5404
Haryana	5552	188	-32	-738	3780	0	36	-872	5552
Rajasthan	8759	0	18	433	7720	0	-166	945	9743
Delhi	3030	0	-31	-315	1591	0	-47	-823	3087
UP	10606	1410	10	78	9188	550	182	47	10606
Uttarakhand	1663	75	-3	680	882	0	-80	390	1722
HP	1329	0	42	404	728	0	40	259	1329
J&K	1980	495	54	535	1615	285	24	614	1980
Chandigarh	182	0	-4	0	82	0	-8	-30	184
Total	38362	2168	138	841	29455	835	94	180	38362

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

figures may not be at simultaneous hour.

Diversity is 1.03

III. Regional Entities :

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	1223	1319	1256	31.34	1306	29.29	2.05
Rihand I STPS (2*500)	1000	870	954	752	21.64	902	20.62	1.01
Rihand II STPS (2*500)	1000	970	1025	724	23.48	979	22.40	1.08
Rihand III STPS (2*500)	1000	475	507	402	11.48	478	10.73	0.75
Dadri I STPS (4*210)	840	615	581	407	12.92	538	12.38	0.54
Dadri II STPS (2*490)	980	980	944	666	20.06	836	19.55	0.51
Unchahar I TPS (2*210)	420	400	438	313	9.23	385	8.64	0.59
Unchahar II TPS (2*210)	420	400	437	301	8.77	365	8.17	0.60
Unchahar III TPS (1*220)	210	200	222	144	4.37	182	4.10	0.27
I-STPP (Jhajhar) (3*500)	1500	1241	1052	896	22.43	935	24.31	-1.88
Dadri GPS (4*130.19+2*154.51)	830	824	414	402	8.89	371	8.89	0.01
Anta GPS (3*88.71+1*153.2)	419	410	267	241	6.02	251	6.13	-0.11
Auraiva GPS (4*111.19+2*109.30)	663	493	327	305	7.58	316	7.52	0.06
Dadri Solar	5	1	0	0	0.02	1	0.03	-0.01
Unchahar Solar	10	3	0	0	0.03	1	0.07	-0.04
Sub Total (A)	11297	9106	8487	6809	188	7844	183	5
B. NPC								
NAPS (2*220)	440	292	329	333	6.97	290	7.01	-0.04
RAPS- B (2*220)	440	389	456	434	9.50	396	9.34	0.16
RAPS- C (2*220)	440	215	237	239	5.02	209	5.16	-0.14
Sub Total (B)	1320	896	1022	1006	21.48	895	21.50	-0.02
C. NHPC								
Chamera I HPS (3*180)	540	356	366	0	1.81	75	1.70	0.11
Chamera II HPS (3*100)	300	200	209	0	1.36	57	1.30	0.06
Chamera III HPS (3*77)	231	154	136	0	0.75	31	0.70	0.05
Bairasuli HPS(3*60)	180	178	179	0	0.54	23	0.49	0.05
Salal-HPS (6*115)	690	121	60	122	3.08	128	2.91	0.17
Tanakpur-HPS (3*40)	94	28	55	26	0.71	30	0.68	0.03
Uri-I HPS (4*120)	480	145	234	124	3.51	146	3.47	0.04
Uri-II HPS (4*60)	240	0	0	0	0.00	0	0.00	0.00
Dhauliganga-HPS (4*70)	280	138	139	0	1.47	61	1.40	0.07
Dulhasti-HPS (3*130)	390	387	157	0	2.99	125	2.90	0.09
Sewa-II HPS (3*40)	120	79	0	0	0.00	0	0.24	-0.24
Parbati 3 (4*130)	520	0	0	0	0.00	0	0.00	0.00
Sub Total (C)	4065	1786	1534	272	16	676	16	0
D. SJVNL								
NJPC (6*250)	1500	1605	425	246	7.57	316	7.44	0.14
Rampur HEP (4*68.67)	275	350	40	0	0.45	19	0.42	0.03
Sub Total (D)	1775	1955	465	246	8.02	334	7.86	0.17
E. THDC								
Tehri HPS (4*250)	1000	1060	1002	0	6.05	252	6.00	0.05
Koteshwar HPS (4*100)	400	91	100	89	2.22	93	2.20	0.02
Sub Total (E)	1400	1151	1102	89	8.27	345	8.20	0.07
F. BBMB								
Bhakra HPS (3*108+2*126+6*157)	1514	629	1039	487	15.13	631	15.10	0.03
Dehar HPS (6*165)	990	125	165	0	2.96	123	3.01	-0.05
Pong HPS (6*66)	396	256	384	66	6.18	258	6.15	0.04
Sub Total (F)	2900	1011	1588	553	24.27	1011	24.26	0.01
G. IPP(s)/JV(s)								
ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	0	0	0.58	24	0.57	0.01
KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	700	0	4.15	173	4.08	0.07
Malana Stg-II HPS (2*50)	100	0	0	0	0.21	9	0.20	0.01
Shree Cement TPS (2*150)	300	0	133	79	2.73	114	2.77	-0.05
Budhil HPS(IPP)	70	0	0	0	0.00	0	0.15	-0.15
Sub Total (G)	1662	0	833	79	7.67	320	7.76	-0.10
H. Total Regional Entities (A-G)	24419	15905	15031	9054	274.20	11425	268.22	5.99

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	840	670	16.03	668
	Guru Nanak Dev TPS(Bhatinda) (4*110)	440	120	120	2.54	106
	Guru Hargobind Singh TPS(L.mbt) (2*210+2*250)	920	462	337	9.05	377
	Goindwal(GVK)		0	0	0.00	0
	Rajpura (2*700)	1400	705	677	19.39	808
	Talwandi Saboo (1*660)	660	361	355	7.61	317
	Thermal (Total)	4680	2488	2159	54.62	2276
	Total Hydro	1148	557	254	8.13	339
Total Punjab	5828	3045	2413	62.75	2615	
Haryana	Panipat TPS (4*110+2*210+2*250)	1367	971	685	19.36	807
	DCRTPP (Yamuna nagar) (2*300)	600	268	246	6.29	262
	Faridabad GPS (NTPC)	432	0	0	0.00	0
	RGTPP (khedar) (IPP) (2*600)	1200	583	378	12.42	517
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP) (2*660)	1320	383	742	16.85	702
	Thermal (Total)	4944	2205	2051	54.92	2288
	Total Hydro	62	10	11	0.28	12
	Total Haryana	5006	2215	2062	55.20	2300
	Rajasthan	kota TPS (2*110+2*195+3*210)	1240	1025	944	21.10
suratgarh TPS (6*250)		1500	922	985	24.40	1017
Chabra TPS (3*250)		750	366	388	10.60	442
Dholpur GPS (3*110)		330	119	116	3.00	125
Ramgarh GPS (1*3 + 1*35.5 +2*37.5 +1*110 +1*50)		271	147	210	4.68	195
RAPS A (NPC) (1*100+1*200)		300	147	79	4.35	181
Barsingar (NLC) (2*125)		250	162	162	4.48	187
Giral LTPS (2*125)		250	26	72	1.43	60
Rajwest LTPS (IPP) (8*135)		1080	730	729	17.11	713
VS LIGNITE LTPS (IPP) (1*135)		135	0	0	0.00	0
Kalisindh Thermal(1*600)		600	0	570	10.18	424
Kawai(Adani) (2*660)		1320	1060	863	26.17	1090
Thermal (Total)		8026	4704	5118	128	5313
Total Hydro		550	270	189	5.35	223
Wind power		2798	59	58	1.02	42
Biomass		99	34	34	0.82	34
Solar		730	0	0	0.19	8
Renewable/Others (Total)		3627	93	92	2.02	84
Total Rajasthan		12203	5067	5399	134.88	5620
UP	Anpara TPS (3*210+2*500)	1630	1354	1347	32.00	1333
	Obra TPS (2*50+2*94+5*200)	1194	245	235	5.70	238
	Paricha TPS (2*110+2*220+2*250)	1140	691	716	16.50	688
	Panki TPS (2*105)	210	135	126	3.20	133
	Harduaganj TPS (1*60+1*105+2*250)	665	457	459	10.90	454
	Tanda TPS (NTPC) (4*110)	440	283	240	6.60	275
	Roza TPS (IPP) (4*300)	1200	779	621	16.90	704
	Anpara-C (IPP) (2*600)	1200	1053	999	24.70	1029
	Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)	450	401	279	7.60	317
	Thermal (Total)	8129	5398	5022	124.10	5171
	Vishnuparyag HPS (IPP)	400	91	94	2.20	92
	Other Hydro	527	40	21	0.96	40
	Cogeneration	981	800	800	19.20	800
	Total UP	10037	6329	5937	146.46	6011
	Uttarakhand	Total Hydro	1398	456	238	7.60
Total Uttarakhand		1398	456	238	7.60	317
Delhi	Raighat TPS (2*67.5)	135	0	0	0.00	0
	Delhi Gas Turbine (6x30 + 3x34)	282	80	79	1.92	80
	Pragati Gas Turbine (2x104+ 1x122)	330	146	156	3.69	154
	Rithala GPS (3*36)	95	0	0	0.00	0
	Bawana GPS (6*250)	1370	323	280	7.24	302
	Badarpur TPS (NTPC) (3*95+2*210)	705	312	270	5.42	226
	Thermal (Total)	2917	861	785	18.27	761
Total Delhi	2917	861	785	18.27	761	
HP	Baspa HPS (IPP) (2*150)	300	153	0	1.15	48
	Malana HPS (IPP) (2*43)	86	0	0	0.23	10
	Other Hydro	728	237	106	3.56	148
	Total HP	1114	390	106	4.94	206
J & K	Baqilhar HPS (IPP) (3*150)	450	396	120	4.21	176
	Other Hydro/IPP	436	91	51	1.53	64
	Gas/Diesel/Others	209	0	0	0.00	0
	Total J & K	1094	487	171	5.74	239
Total State Control Area Generation		39597	18850	17111	435.83	18068
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			5744	3872	131.80	5491
Total Regional Availability(Gross)		64017	39625	30037	841.82	34984

IV. Total Hydro Generation:

Regional Entities Hydro	11432	5389	1160	61.73	2572
State Control Area Hydro	5684	2210	990	35.20	1375
Total Regional Hydro	17116	7599	2150	96.93	3947

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	-400	500	400	3.02	3.56	-0.54
Gwalior-Agra (D/C)	1745	1304	2056	0	40.22	0.00	40.22
Zerda-Kankroli	-39	-161	61	161	0.00	0.84	-0.84
Zerda-Bhinmal	37	-55	206	139	1.54	0.00	1.54
Malanpur-Auraiya	-75	-112	0	124	0.00	2.42	-2.42
Badod-Kota/Morak	-35	-151	0	164	0.00	2.12	-2.12
Mundra-Mohindergarh(HVDC)	2197	1998	2304	0	52.47	0.00	52.47
Vindhychal - Rihand	0	0	0	0	0.00	0.00	0.00
Sub Total WR	4330	2423			97.25	8.94	88.31
Pusauli Bypass	292	249	387	128	6.53	0.00	6.53
MZP- GKP (D/C)	172	258	472	0	6.25	0.00	6.25
Patna-Balia(D/C)	247	387	546	0	10.45	0.00	10.45
B'Sharif-Balia (D/C)	145	179	330	0	4.85	0.00	4.85
Pusauli-Balia	12	10	29	0	0.22	0.00	0.22
Gaya-Fatehpur (765 Kv)	219	182	488	0	7.26	0.00	7.26
Pusauli-Sahupuri	152	104	152	0	2.49	0.00	2.49
K'nasa-Sahupuri	0	0	0	0	0.48	0.00	0.48
Son Ngr-Rihand	-33	-34	0	43	0.00	0.84	-0.84
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	208	114	400	0	5.80	0.00	5.80
Sub Total ER	1414	1449			44.33	0.84	43.49
Total IR Exch	5744	3872			141.58	9.78	131.80

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
26.99	0.64	27.63	7.71	-9.24	3.48	13.05	6.01	-6.01

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
44.83	74.97	119.80	43.49	88.31	131.80	-1.34	13.34	11.99

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	0.14	2.01	13.96	43.40	50.14	19.51	15.21	1.18	NA

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)		
50.34	0.01	49.69	17.43	50.01	0.09	0.10	50.22	0.00

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	23:54	402	16:56	0.0	0.0	0.0	0.0
Gorakhpur	400	412	20:04	394	12:27	0.0	0.0	0.0	0.0
Bareilly	400	426	20:05	401	12:29	0.0	0.0	11.2	0.0
Kanpur	400	423	20:04	402	12:25	0.0	0.0	3.1	0.0
Dadri	400	423	21:28	407	12:19	0.8	0.8	5.0	0.0
Ballabgarh	400	430	21:25	410	12:27	0.0	0.0	53.1	0.0
Bawana	400	428	21:57	410	12:18	0.0	0.0	43.3	0.0
Bassi	400	426	19:45	392	09:29	0.0	0.0	13.0	0.0
Hissar	400	416	21:24	397	10:34	0.0	0.0	0.0	0.0
Moga	400	422	21:24	402	10:36	0.0	0.0	3.7	0.0
Abdullapur	400	423	22:00	396	12:19	0.0	0.0	3.5	0.0
Nalagarh	400	425	05:02	407	12:14	0.0	0.0	6.4	0.0
Kishenpur	400	421	04:00	399	18:15	0.0	0.0	0.3	0.0
Wagoora	400	402	03:05	373	18:15	4.9	62.2	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	777	05:02	753	07:12	0.0	0.0	0.0	0.0
Balia	765	776	20:05	741	10:37	0.0	0.6	0.0	0.0
Moga	765	801	21:26	764	12:27	0.0	0.0	0.6	0.0
Agra	765	797	21:27	770	16:18	0.0	0.0	0.0	0.0
Bhiwani	765	799	05:02	773	12:21	0.0	0.0	0.0	0.0
Unnao	765	780	20:05	737	12:27	0.0	3.5	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	501.58	1166.44	506.59	1382.01	156.51	465.22
Pong	426.72	384.05	409.10	464.36	415.70	705.67	66.83	407.93
Tehri	829.79	740.04	816.45	932.25	818.95	982.26	50.34	136.00
Koteshwar	612.50	598.50	609.87	4.44	610.15	4.69	136.00	147.00
Chamera-I	760.00	748.75	759.71	0.00	0.00	0.00	51.21	48.57
Rihand	268.22	252.98	853.30	309.60	857.80	386.90	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	508.89	1.65	513.96	2.53	33.30	75.46

* 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	-391	41	0	-411	174	0	-10.44	2.27	-8.17
Delhi	-803	-10	-10	-495	191	-10	-14.21	1.63	-12.58
Haryana	-981	108	0	-863	125	0	-23.51	2.68	-20.83
HP	531	-272	0	501	-97	0	12.51	-4.00	8.51
J&K	565	49	0	437	98	0	11.90	1.17	13.06
CHD	-30	0	0	0	0	0	-0.24	0.16	-0.09
Rajasthan	490	453	2	490	-60	2	15.78	7.43	23.21
UP	47	0	0	78	0	0	1.14	0.00	1.14
Uttarakhand	215	175	0	215	465	0	5.16	8.43	13.60
Total	-356	545	-8	-47	896	-8	-1.90	19.76	17.86

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	-391	-485	290	3	0	0
Delhi	-475	-803	311	-51	-10	-20
Haryana	-667	-1082	137	89	0	0
HP	531	482	-63	-389	0	0
J&K	565	437	98	-68	0	0
CHD	0	-30	0	0	20	0
Rajasthan	849	490	453	-633	2	-49
UP	111	-9	0	0	0	0
Uttarakhand	215	215	465	166	49	0

XI. System Constraints:**XII. Grid Disturbance / Any Other Significant Event:****XIII. Weather Conditions For 08.12.2014 :**

Fog in Eastern UP

XIV. Synchronisation of new generating units :

0.00

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 :**