

पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिड की पूर्ण स्वामित्व प्राप्त महायक कंपनी)



उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 13.12.2014
Date of Reporting : 14.12.2014

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
36231	1579	37810	50.07	29747	1087	30834	50.36	790.2	33.79

* 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	49.60	8.75		58.34	30.31	31.04	0.72	89.38	0.00
Haryana	58.24	0.38		58.62	54.37	58.03	3.66	116.66	0.04
Rajasthan	115.58	5.15	14.56	135.28	66.00	69.03	3.03	204.32	0.00
Delhi	17.47			17.47	39.25	41.00	1.75	58.47	0.00
UP	130.18	1.20		131.38	84.22	87.72	3.51	219.10	25.94
Uttarakhand		8.06		8.06	24.91	24.22	-0.69	32.28	0.27
HP		4.37		4.37	20.39	19.51	-0.88	23.89	0.00
J & K		5.13	0.00	5.13	34.94	37.56	2.62	42.69	7.54
Chandigarh				0.00	3.30	3.47	0.18	3.47	0.00
Total	371.06	33.04	14.56	418.66	357.70	371.59	13.89	790.24	33.79

* 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	4321	0	-35	-166	3379	0	139	-381	5066
Haryana	5666	0	-163	-733	4190	0	53	-734	5774
Rajasthan	9122	0	28	-293	7656	0	78	997	9651
Delhi	2936	0	-159	-208	1666	0	181	-986	3234
UP	9190	1190	-183	88	9206	800	-1	73	10703
Uttarakhand	1678	40	-11	721	1120	0	-50	511	1678
HP	1161	0	-65	349	814	0	36	364	1316
J&K	1979	349	97	532	1629	287	34	637	1983
Chandigarh	178	0	-17	0	87	0	5	-30	194
Total	36231	1579	-508	290	29747	1087	474	452	38105

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

figures may not be at simultaneous hour.

Diversity is 1.04

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	1450	1559	1315	36.56	1523	34.01	2.55
Rihand I STPS (2*500)	1000	899	924	705	20.47	853	19.12	1.36
Rihand II STPS (2*500)	1000	970	1000	676	21.36	890	20.39	0.96
Rihand III STPS (2*500)	1000	970	918	733	21.30	888	20.30	1.00
Dadri I STPS (4*210)	840	615	503	445	12.36	515	11.69	0.67
Dadri II STPS (2*490)	980	980	723	706	18.76	782	18.35	0.41
Unchahar I TPS (2*210)	420	408	313	318	8.53	355	8.12	0.41
Unchahar II TPS (2*210)	420	407	299	291	8.21	342	7.69	0.52
Unchahar III TPS (1*220)	210	203	157	152	4.23	176	3.90	0.33
I-STPP (Jhajhar) (3*500)	1500	1211	969	919	20.24	843	21.74	-1.50
Dadri GPS (4*130.19+2*154.51)	830	826	369	436	10.45	435	10.51	-0.06
Anta GPS (3*88.71+1*153.2)	419	370	220	207	5.52	230	5.59	-0.07
Auraiva GPS (4*111.19+2*109.30)	663	493	309	151	4.63	193	4.70	-0.07
Dadri Solar	5	1	0	0	0.04	2	0.03	0.02
Unchahar Solar	10	3	0	0	0.01	0	0.07	-0.06
Sub Total (A)	11297	9806	8263	7054	193	8028	186	6
B. NPC								
NAPS (2*220)	440	293	331	331	7.07	294	7.03	0.03
RAPS-B (2*220)	440	411	453	453	9.80	409	9.86	-0.06
RAPS-C (2*220)	440	220	236	238	5.01	209	5.28	-0.27
Sub Total (B)	1320	924	1020	1022	21.88	912	22.18	-0.30
C. NHPC								
Chamera I HPS (3*180)	540	356	184	0	2.10	87	2.00	0.10
Chamera II HPS (3*100)	300	200	102	0	1.19	49	1.20	-0.01
Chamera III HPS (3*77)	231	154	161	0	0.72	30	0.65	0.07
Bairasuli HPS(3*60)	180	179	120	0	0.47	19	0.41	0.06
Salal-HPS (6*115)	690	123	230	108	3.00	125	2.93	0.08
Tanakpur-HPS (3*40)	94	26	32	32	0.64	26	0.62	0.01
Uri-I HPS (4*120)	480	131	231	71	3.23	134	3.14	0.09
Uri-II HPS (4*60)	240	0	0	0	0.00	0	0.00	0.00
Dhauliganga-HPS (4*70)	280	138	140	0	0.84	35	0.78	0.06
Dulhasti-HPS (3*130)	390	387	393	0	2.51	104	2.40	0.11
Sewa-II HPS (3*40)	120	79	81	0	0.24	10	0.24	0.00
Parbati 3 (4*130)	520	0	0	0	0.00	0	0.00	0.00
Sub Total (C)	4065	1773	1674	211	15	621	14	1
D. SJVNL								
NJPC (6*250)	1500	1605	1269	0	7.17	299	7.00	0.17
Rampur HEP (4*68.67)	275	350	327	0	1.95	81	1.90	0.05
Sub Total (D)	1775	1955	1596	0	9.12	380	8.90	0.23
E. THDC								
Tehri HPS (4*250)	1000	1060	759	0	7.43	310	7.30	0.13
Koteshwar HPS (4*100)	400	104	202	89	2.53	106	2.50	0.03
Sub Total (E)	1400	1164	961	89	9.96	415	9.80	0.16
F. BBMB								
Bhakra HPS (3*108+2*126+6*157)	1514	602	1059	491	14.43	601	14.44	-0.01
Dehar HPS (6*165)	990	125	165	0	2.98	124	3.00	-0.02
Pong HPS (6*66)	396	275	324	60	6.61	275	6.59	0.02
Sub Total (F)	2900	1001	1548	551	24.02	1001	24.03	-0.01
G. IPP(s)/JV(s)								
ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	0	0	0.45	19	0.44	0.01
KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	647	0	3.73	156	3.58	0.15
Malana Stg-II HPS (2*50)	100	0	0	0	0.21	9	0.20	0.01
Shree Cement TPS (2*150)	300	0	127	69	2.66	111	2.74	-0.08
Budhil HPS(IPP)	70	0	0	0	0.11	5	0.11	0.00
Sub Total (G)	1662	0	774	69	7.16	298	7.07	0.09
H. Total Regional Entities (A-G)	24419	16623	15836	8997	279.72	11655	272.55	7.17

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	510	870	15.82	659
	Guru Nanak Dev TPS(Bhatinda) (4*110)	440	120	120	2.51	105
	Guru Hargobind Singh TPS(L.mbt) (2*210+2*250)	920	337	335	7.95	331
	Goindwal(GVK)		0	0	0.00	0
	Rajpura (2*700)	1400	707	673	15.72	655
	Talwandi Saboo (1*660)	660	350	360	7.60	317
	Thermal (Total)	4680	2024	2358	49.60	2066
	Total Hydro	1148	403	387	8.75	365
Total Punjab	5828	2427	2745	58.34	2431	
Haryana	Panipat TPS (4*110+2*210+2*250)	1367	969	917	21.66	903
	DCRTPP (Yamuna nagar) (2*300)	600	275	243	5.71	238
	Faridabad GPS (NTPC)	432	0	0	0.00	0
	RGTPP (khedar) (IPP) (2*600)	1200	571	369	9.28	387
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP) (2*660)	1320	751	715	21.59	900
	Thermal (Total)	4944	2566	2244	58.24	2427
	Total Hydro	62	17	16	0.38	16
	Total Haryana	5006	2583	2260	58.62	2443
	Rajasthan	kota TPS (2*110+2*195+3*210)	1240	1043	958	23.90
suratgarh TPS (6*250)		1500	1035	782	20.80	867
Chabra TPS (3*250)		750	429	574	11.41	475
Dholpur GPS (3*110)		330	130	119	3.09	129
Ramgarh GPS (1*3 + 1*35.5 +2*37.5 +1*110 +1*50)		271	229	193	5.41	225
RAPS A (NPC) (1*100+1*200)		300	152	152	4.17	174
Barsingsar (NLC) (2*125)		250	95	95	2.06	86
Giral LTPS (2*125)		250	81	83	1.66	69
Rajwest LTPS (IPP) (8*135)		1080	731	383	14.88	620
VS LIGNITE LTPS (IPP) (1*135)		135	0	0	0.00	0
Kalisindh Thermal(1*600)		600	0	580	2.82	117
Kawai(Adani) (2*660)		1320	1179	844	25.38	1058
Thermal (Total)		8026	5104	4763	116	4816
Total Hydro		550	297	115	5.15	215
Wind power		2798	422	731	13.47	561
Biomass		99	38	38	0.90	38
Solar		730	2	0	0.18	8
Renewable/Others (Total)		3627	462	769	14.56	607
Total Rajasthan	12203	5863	5647	135.28	5637	
UP	Anpara TPS (3*210+2*500)	1630	937	898	21.70	904
	Obra TPS (2*50+2*94+5*200)	1194	340	301	8.49	354
	Paricha TPS (2*110+2*220+2*250)	1140	716	758	17.80	742
	Panki TPS (2*105)	210	135	131	3.24	135
	Harduaganj TPS (1*60+1*105+2*250)	665	399	493	9.60	400
	Tanda TPS (NTPC) (4*110)	440	231	272	6.40	267
	Roza TPS (IPP) (4*300)	1200	576	675	14.60	608
	Anpara-C (IPP) (2*600)	1200	770	1026	22.78	949
	Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)	450	288	279	6.37	265
	Thermal (Total)	8129	4392	4833	110.98	4624
	Vishnuparyag HPS (IPP)	400	88	88	0.00	0
	Other Hydro	527	46	26	1.20	50
	Cogeneration	981	800	800	19.20	800
	Total UP	10037	5326	5747	131.38	5474
Uttarakhand	Total Hydro	1398	448	266	8.06	336
	Total Uttarakhand	1398	448	266	8.06	336
Delhi	Raighat TPS (2*67.5)	135	0	0	-0.01	0
	Delhi Gas Turbine (6x30 + 3x34)	282	81	81	1.94	81
	Pragati Gas Turbine (2x104+ 1x122)	330	158	159	3.79	158
	Rithala GPS (3*36)	95	0	0	0.00	0
	Bawana GPS (6*250)	1370	302	269	6.88	287
	Badarpur TPS (NTPC) (3*95+2*210)	705	221	172	4.87	203
	Thermal (Total)	2917	762	681	17.47	728
Total Delhi	2917	762	681	17.47	728	
HP	Baspa HPS (IPP) (2*150)	300	0	0	1.12	47
	Malana HPS (IPP) (2*43)	86	0	0	0.22	9
	Other Hydro	728	145	105	3.03	126
	Total HP	1114	145	105	4.37	182
J & K	Baqilhar HPS (IPP) (3*150)	450	270	120	3.78	158
	Other Hydro/IPP	436	94	41	1.35	56
	Gas/Diesel/Others	209	0	0	0.00	0
	Total J & K	1094	364	161	5.13	214
Total State Control Area Generation		39597	17918	17612	418.66	17444
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			3736.51	4244	116.85	4869
Total Regional Availability(Gross)		64017	37491	30853	815.24	33968

IV. Total Hydro Generation:

Regional Entities Hydro	11432	6426	851	62.40	2600
State Control Area Hydro	5684	1720	1076	33.04	1377
Total Regional Hydro	17116	8146	1927	95.44	3977

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	-350	100	100	350	0.75	3.29	-2.54
Gwalior-Agra (D/C)	1506	1504	2328	0	40.94	0.00	40.94
Zerda-Kankroli	-157	-209	49	273	0.00	2.63	-2.63
Zerda-Bhinmal	-88	-117	162	246	0.00	0.62	-0.62
Malanpur-Auraiya	19	0	0	26	0.00	0.03	-0.03
Badod-Kota/Morak	-17	-80	18	85	0.00	1.12	-1.12
Mundra-Mohindergarh(HVDC)	2302	2299	2305	0	55.63	0.00	55.63
Vindhychal - Rihand	0	0	0	0	0.00	0.00	0.00
Sub Total WR	3215	3497			97.33	7.70	89.63
Pusauli Bypass	425	400	425	0	10.09	0.00	10.09
MZP- GKP (D/C)	6	-5	408	132	2.21	0.00	2.21
Patna-Balia(D/C)	344	378	627	0	10.68	0.00	10.68
B'Sharif-Balia (D/C)	49	17	126	24	1.86	0.00	1.86
Pusauli-Balia	-165	-103	0	182	0.00	2.67	-2.67
Gaya-Fatehpur (765 Kv)	-4	92	409	4	4.15	0.00	4.15
Pusauli-Sahupuri	143	121	147	0	2.68	0.00	2.68
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-41	-40	0	43	0.00	0.81	-0.81
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	-235	-113	142	235	0.00	0.97	-0.97
Sub Total ER	522	747			31.67	4.45	27.22
Total IR Exch	3737	4244			129.00	12.15	116.85

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
21.09	0.47	21.56	7.83	-10.04	6.87	9.59	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
42.27	60.67	102.94	27.22	89.63	116.85	-15.05	28.96	13.91

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	1.05	6.27	18.69	46.82	44.40	12.25	13.66	11.06	NA

Frequency (Hz)				Average Frequency Hz	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX (Hz)	MIN (Hz)
Freq	Time	Freq	Time					
50.41	4.03	49.55	17.12	50.02	0.19	0.14	50.45	49.81

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	413	00:00	403	12:24	0.0	0.0	0.0	0.0
Gorakhpur	400	412	03:01	392	10:19	0.0	0.0	0.0	0.0
Bareilly	400	426	04:01	401	09:16	0.0	0.0	24.3	0.0
Kanpur	400	424	03:03	399	09:22	0.0	0.0	20.7	0.0
Dadri	400	424	04:02	404	09:19	0.0	0.0	13.4	0.0
Ballabgarh	400	430	03:00	404	09:22	0.0	0.0	49.7	0.0
Bawana	400	428	21:48	406	10:38	0.0	0.0	40.8	0.0
Bassi	400	429	21:43	385	09:13	0.0	2.9	9.9	0.0
Hissar	400	419	20:41	393	09:26	0.0	0.0	0.0	0.0
Moga	400	424	03:01	397	10:08	0.0	0.0	25.1	0.0
Abdullapur	400	426	21:43	396	18:17	0.0	0.0	21.2	0.0
Nalagarh	400	430	21:41	407	10:37	0.0	0.0	41.1	0.0
Kishenpur	400	427	01:32	389	10:01	0.0	0.3	5.2	0.0
Wagoora	400	397	12:30	367	10:03	46.3	87.2	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	781	21:47	734	09:22	0.0	9.0	0.0	0.0
Balia	765	774	03:01	737	09:12	0.0	5.2	0.0	0.0
Moga	765	802	03:01	752	10:35	0.0	0.0	1.5	0.0
Agra	765	800	03:03	747	09:17	0.0	0.0	0.0	0.0
Bhiwani	765	804	03:04	755	10:25	0.0	0.0	18.9	0.0
Unnao	765	778	03:00	728	09:24	0.0	24.6	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	500.59	1114.30	505.51	1325.82	157.30	415.41
Pong	426.72	384.05	408.21	435.19	414.88	668.52	64.34	444.43
Tehri	829.79	740.04	815.30	918.00	818.00	962.25	47.89	168.00
Koteshwar	612.50	598.50	609.97	4.40	610.10	4.69	168.00	168.00
Chamera-I	760.00	748.75	759.30	0.00	0.00	0.00	44.72	56.16
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	508.41	2.21	513.40	2.45	49.43	117.19

* 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	10	0	-411	245	0	-10.44	1.27	-9.18
Delhi	-935	-10	-41	-521	343	-30	-14.91	2.10	-12.81
Haryana	-884	150	0	-868	135	0	-22.54	2.80	-19.74
HP	431	-66	0	401	-53	0	10.95	-2.33	8.62
J&K	643	-6	0	440	92	0	12.34	1.22	13.56
CHD	-30	0	0	0	0	0	-0.24	0.09	-0.15
Rajasthan	490	506	1	490	-784	1	15.78	3.76	19.55
UP	73	0	0	88	0	0	1.29	0.00	1.29
Uttarakhand	215	247	49	215	491	15	5.16	9.90	15.07
Total	-387	830	9	-164	469	-15	-2.60	18.81	16.21

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	-391	-485	250	3	0	0
Delhi	-426	-935	343	-61	-15	-41
Haryana	-868	-1053	151	68	0	0
HP	496	382	67	-478	0	0
J&K	643	440	124	-125	0	0
CHD	0	-30	25	0	0	0
Rajasthan	849	490	507	-937	1	0
UP	108	-15	0	0	0	0
Uttarakhand	215	215	512	247	49	0

XI. System Constraints:**XII. Grid Disturbance / Any Other Significant Event:****XIII. Weather Conditions For 13.12.2014 :**

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 :**