

पावर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिड की पूर्ण स्वामित्व प्राप्त महायक कंपनी)



उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 30.12.2014
Date of Reporting : 31.12.2014

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
40469	2277	42746	50.09	30134	590	30724	50.18	847.0	46.57

* 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	50.89	7.52		58.42	37.52	37.21	-0.31	95.63	0.00
Haryana	69.21	0.42		69.63	47.57	45.60	-1.97	115.22	0.06
Rajasthan	109.33	5.02	10.64	124.98	86.87	88.29	1.42	213.27	0.00
Delhi	23.73			23.73	47.53	45.20	-2.33	68.93	0.00
UP	153.33	5.33		158.66	88.71	88.60	-0.12	247.26	38.58
Uttarakhand		7.95		7.95	26.53	26.48	-0.05	34.43	0.35
HP		4.24		4.24	21.44	21.04	-0.40	25.28	0.00
J & K		4.81	0.00	4.81	36.28	38.20	1.92	43.01	7.59
Chandigarh				0.00	3.92	3.98	0.27	3.98	0.00
Total	406.50	35.29	10.64	452.42	396.39	394.59	-1.58	847.01	46.57

* 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	5094	0	-50	-438	3121	0	13	-358	5192
Haryana	5893	259	-180	-859	3748	0	13	-779	6101
Rajasthan	9317	0	-290	1087	8199	0	41	1484	10302
Delhi	3490	0	-22	-64	1767	0	-36	-943	3995
UP	11547	1700	71	593	9562	290	-324	73	11568
Uttarakhand	1811	0	144	293	1145	0	-42	57	1811
HP	1298	0	-98	446	789	0	-11	521	1359
J&K	1807	319	-80	649	1701	300	2	593	2070
Chandigarh	212	0	-1	34	103	0	20	-31	229
Total	40469	2277	-507	1741	30134	590	-325	1116	40469

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

figures may not be at simultaneous hour.

Diversity is 1.05

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	1563	1414	36.91	1538	34.08	2.83
Rihand I STPS (2*500)	1000	873	945	701	21.07	878	19.43	1.64
Rihand II STPS (2*500)	1000	956	1014	865	22.57	941	21.09	1.48
Rihand III STPS (2*500)	1000	967	1016	791	22.33	930	21.10	1.23
Dadri I STPS (4*210)	840	615	478	443	13.05	544	12.44	0.60
Dadri II STPS (2*490)	980	980	949	719	20.52	855	20.31	0.21
Unchahar I TPS (2*210)	420	395	351	330	9.22	384	8.69	0.53
Unchahar II TPS (2*210)	420	393	323	290	8.93	372	8.38	0.56
Unchahar III TPS (1*220)	210	197	160	138	4.34	181	4.06	0.28
I-STPP (Jhajhar) (3*500)	1500	1483	1445	1056	26.30	1096	25.49	0.80
Dadri GPS (4*130.19+2*154.51)	830	844	306	315	7.48	311	7.46	0.02
Anta GPS (3*88.71+1*153.2)	419	426	250	224	5.68	237	5.85	-0.17
Auraiva GPS (4*111.19+2*109.30)	663	675	199	258	5.11	213	5.19	-0.09
Dadri Solar	5	1	0	0	0.01	1	0.02	-0.01
Unchahar Solar	10	3	0	0	0.02	1	0.07	-0.05
Sub Total (A)	11297	10258	8999	7544	204	8480	194	10
B. NPC								
NAPS (2*220)	440	337	385	379	8.21	342	8.09	0.12
RAPS- B (2*220)	440	411	453	454	9.85	410	9.86	-0.02
RAPS- C (2*220)	440	193	238	238	5.00	208	4.62	0.37
Sub Total (B)	1320	941	1076	1071	23.06	961	22.57	0.48
C. NHPC								
Chamera I HPS (3*180)	540	356	364	0	1.58	66	1.50	0.08
Chamera III HPS (3*100)	300	300	304	0	1.33	55	1.25	0.08
Chamera III HPS (3*77)	231	154	150	0	0.72	30	0.65	0.07
Bairasuli HPS(3*60)	180	165	120	0	0.40	17	0.34	0.06
Salal-HPS (6*115)	690	96	226	62	2.44	102	2.31	0.13
Tanakpur-HPS (3*40)	94	25	40	25	0.62	26	0.60	0.03
Uri-I HPS (4*120)	480	110	200	105	2.80	117	2.64	0.17
Uri-II HPS (4*60)	240	0	0	0	0.00	0	0.00	0.00
Dhauliganga-HPS (4*70)	280	138	139	0	0.88	37	0.80	0.08
Dulhasti-HPS (3*130)	390	387	266	0	2.77	115	2.70	0.06
Sewa-II HPS (3*40)	120	79	70	0	0.22	9	0.24	-0.02
Parbati 3 (4*130)	520	0	0	0	0.00	0	0.00	0.00
Sub Total (C)	4065	1810	1879	192	14	573	13	1
D.SJVNL								
NJPC (6*250)	1500	1605	1423	0	6.48	270	6.19	0.29
Rampur HEP (4*68.67)	275	420	367	0	1.81	75	1.73	0.08
Sub Total (D)	1775	2025	1790	0	8.29	345	7.93	0.37
E. THDC								
Tehri HPS (4*250)	1000	1030	1030	0	8.16	340	8.00	0.16
Koteshwar HPS (4*100)	400	116	302	91	2.84	118	2.80	0.04
Sub Total (E)	1400	1146	1332	91	11.00	458	10.80	0.20
F. BBMB								
Bhakra HPS (3*108+2*126+6*157)	1514	601	1047	344	14.64	610	14.42	0.21
Dehar HPS (6*165)	990	121	165	0	2.88	120	2.90	-0.02
Pong HPS (6*66)	396	209	384	60	5.19	216	5.03	0.17
Sub Total (F)	2900	931	1596	404	22.71	946	22.35	0.36
G. IPP(s)/JV(s)								
ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	0	0	0.47	20	0.47	0.00
KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	600	0	3.57	149	3.48	0.09
Malana Stg-II HPS (2*50)	100	0	0	0	0.00	0	0.00	0.00
Shree Cement TPS (2*150)	300	0	147	148	3.53	147	3.57	-0.04
Budhil HPS(IPP)	70	0	0	0	0.00	0	0.00	0.00
Sub Total (G)	1662	0	747	148	7.57	316	7.52	0.05
H. Total Regional Entities (A-G)	24419	17111	17418	9449	289.91	12080	277.86	12.05

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	940	850	20.20	841
	Guru Nanak Dev TPS(Bhatinda) (4*110)	440	120	105	2.22	93
	Guru Hargobind Singh TPS(L.mbt) (2*210+2*250)	920	504	362	9.59	400
	Goindwal(GVK)		0	0	0.00	0
	Rajpura (2*700)	1400	583	345	10.62	443
	Talwandi Saboo (1*660)	660	364	346	8.26	344
	Thermal (Total)	4680	2511	2008	50.89	2121
	Total Hydro	1148	405	233	7.52	313
Total Punjab	5828	2916	2241	58.42	2434	
Haryana	Panipat TPS (4*110+2*210+2*250)	1367	787	839	18.43	768
	DCRTPP (Yamuna nagar) (2*300)	600	487	469	11.56	482
	Faridabad GPS (NTPC)	432	198	271	5.92	247
	RGTPP (khedar) (IPP) (2*600)	1200	1094	693	19.92	830
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP) (2*660)	1320	625	372	13.38	557
	Thermal (Total)	4944	3191	2644	69.21	2884
	Total Hydro	62	12	19	0.42	18
	Total Haryana	5006	3203	2663	69.63	2901
	Rajasthan	kota TPS (2*110+2*195+3*210)	1240	963	957	23.60
suratgarh TPS (6*250)		1500	1167	1156	28.94	1206
Chabra TPS (3*250)		750	607	625	13.38	558
Dholpur GPS (3*110)		330	114	112	2.87	119
Ramgarh GPS (1*3 + 1*35.5 +2*37.5 +1*110 +1*50)		271	172	175	4.53	189
RAPS A (NPC) (1*100+1*200)		300	147	150	4.10	171
Barsingsar (NLC) (2*125)		250	191	191	4.47	186
Giral LTPS (2*125)		250	89	89	1.60	67
Rajwest LTPS (IPP) (8*135)		1080	688	486	14.00	583
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	501	441	11.85	494
Thermal (Total)		8026	4639	4382	109	4555
Total Hydro		550	283	117	5.02	209
Wind power		2798	277	393	9.72	405
Biomass		99	32	32	0.77	32
Solar		730	1	0	0.15	6
Renewable/Others (Total)		3627	310	425	10.64	443
Total Rajasthan		12203	5232	4924	124.98	5208
UP		Anpara TPS (3*210+2*500)	1630	1284	1206	29.60
	Obra TPS (2*50+2*94+5*200)	1194	333	338	8.10	338
	Paricha TPS (2*110+2*220+2*250)	1140	763	743	18.60	775
	Panki TPS (2*105)	210	59	59	1.50	63
	Harduaganj TPS (1*60+1*105+2*250)	665	491	482	11.60	483
	Tanda TPS (NTPC) (4*110)	440	389	395	9.23	384
	Roza TPS (IPP) (4*300)	1200	1044	999	23.40	975
	Anpara-C (IPP) (2*600)	1200	990	999	23.61	984
	Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)	450	402	381	8.50	354
	Thermal (Total)	8129	5755	5602	134.13	5589
	Vishnuparyag HPS (IPP)	400	79	76	1.88	78
	Other Hydro	527	235	119	3.46	144
	Cogeneration	981	800	800	19.20	800
	Total UP	10037	6869	6597	158.66	6533
	Uttarakhand	Total Hydro	1398	438	259	7.95
Total Uttarakhand		1398	438	259	7.95	331
Delhi	Raighat TPS (2*67.5)	135	0	0	0.00	0
	Delhi Gas Turbine (6x30 + 3x34)	282	41	81	1.89	79
	Pragati Gas Turbine (2x104+ 1x122)	330	287	276	6.81	284
	Rithala GPS (3*36)	95	0	0	0.00	0
	Bawana GPS (6*250)	1370	296	293	7.22	301
	Badarpur TPS (NTPC) (3*95+2*210)	705	330	312	7.82	326
	Thermal (Total)	2917	954	962	23.73	989
Total Delhi	2917	954	962	23.73	989	
HP	Baspa HPS (IPP) (2*150)	300	32	0	0.94	39
	Malana HPS (IPP) (2*43)	86	0	0	0.27	11
	Other Hydro	728	221	51	3.03	126
	Total HP	1114	253	51	4.24	177
J & K	Baqilhar HPS (IPP) (3*150)	450	150	150	3.60	150
	Other Hydro/IPP	436	63	48	1.21	50
	Gas/Diesel/Others	209	0	0	0.00	0
	Total J & K	1094	213	198	4.81	200
Total State Control Area Generation		39597	20078	17895	452.42	18773
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			4917.77	4871.69	143.21	5967
Total Regional Availability(Gross)		64017	42414	32216	885.55	36820

IV. Total Hydro Generation:

Regional Entities Hydro	11432	7197	686	59.80	2492
State Control Area Hydro	5684	1839	996	35.29	1392
Total Regional Hydro	17116	9036	1682	95.09	3884

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	200	200	200	0	4.72	0.00	4.72
Gwalior-Agra (D/C)	1284	1150	2052	0	37.88	0.00	37.88
Zerda-Kankroli	-45	-155	41	212	0.00	1.85	-1.85
Zerda-Bhinmal	50	70	249	1	3.08	0.00	3.08
Malanpur-Auraiya	-30	-30	0	45	0.00	0.74	-0.74
Badod-Kota/Morak	-9	-111	0	112	0.00	1.14	-1.14
Mundra-Mohindergarh(HVDC)	2097	2201	2204	0	51.95	0.00	51.95
Vindhychal - Rihand	494	272	521	0	9.98	0.00	9.98
Sub Total WR	4041	3597			107.61	3.72	103.89
Pusauli Bypass	500	500	500	0	11.06	0.00	11.06
MZP- GKP (D/C)	2	5	131	5	1.39	0.00	1.39
Patna-Balia(D/C)	362	516	835	0	15.37	0.00	15.37
B'Sharif-Balia (D/C)	-194	121	134	194	0.00	0.82	-0.82
Pusauli-Balia	0	0	0	0	0.00	0.00	0.00
Gaya-Fatehpur (765 Kv)	205	153	619	0	8.76	0.00	8.76
Pusauli-Sahupuri	122	125	150	0	2.92	0.00	2.92
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-40	-40	0	43	0.00	0.93	-0.93
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	-80	-105	306	117	1.57	0.00	1.57
Sub Total ER	877	1275			41.07	1.75	39.33
Total IR Exch	4918	4872			148.68	5.47	143.21

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
26.22	0.30	26.53	10.40	-8.20	13.59	26.87	5.89	-5.89

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
56.40	87.08	143.48	39.33	103.89	143.21	-17.08	16.80	-0.27

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	4.24	9.31	27.43	59.31	51.53	12.01	NA	1.25	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				
50.29	02:03:00	49.54	08:40:00	49.96	0.16	0.12	50.30	49.69

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	02:08	403	12:33	0.0	0.0	0.0	0.0
Gorakhpur	400	410	02:32	391	09:38	0.0	0.0	0.0	0.0
Bareilly	400	424	23:58	400	09:37	0.0	0.0	4.2	0.0
Kanpur	400	421	23:58	398	09:37	0.0	0.0	0.1	0.0
Dadri	400	422	02:31	403	10:35	0.0	0.0	3.2	0.0
Ballabgarh	400	429	02:25	407	10:37	0.0	0.0	37.5	0.0
Bawana	400	427	02:13	408	10:35	0.0	0.0	30.9	0.0
Bassi	400	426	21:44	391	09:38	0.0	0.0	10.6	0.0
Hissar	400	417	02:14	397	10:37	0.0	0.0	0.0	0.0
Moga	400	424	02:23	405	10:35	0.0	0.0	11.0	0.0
Abdullapur	400	424	02:31	396	18:27	0.0	0.0	13.3	0.0
Nalagarh	400	428	02:31	412	18:21	0.0	0.0	55.2	0.0
Kishenpur	400	416	01:59	390	18:12	0.0	0.0	0.0	0.0
Wagoora	400	396	02:02	363	18:48	45.7	82.7	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	23:57	737	09:37	0.0	5.7	0.0	0.0
Balia	765	772	23:58	735	10:32	0.0	16.5	0.0	0.0
Moga	765	0	00:00	9999	00:00	0.0	0.0	0.0	0.0
Agra	765	798	23:57	751	09:35	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	771	23:57	728	12:37	0.0	39.2	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	497.93	1018.16	502.41	1192.70	145.89	428.86
Pong	426.72	384.05	405.54	361.16	412.19	566.84	42.84	362.60
Tehri	829.79	740.04	810.30	808.27	813.27	865.27	44.16	189.00
Koteshwar	612.50	598.50	610.08	4.69	609.65	4.44	189.00	188.00
Chamera-I	760.00	748.75	759.57	0.00	0.00	0.00	44.46	43.78
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	506.84	1.61	511.67	2.40	29.11	75.94

* 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	-419	61	0	-439	1	0	-11.12	0.50	-10.62
Delhi	-902	-31	-10	-546	482	0	-14.05	6.85	-7.20
Haryana	-894	114	0	-894	35	0	-22.86	1.40	-21.47
HP	475	46	0	446	0	0	12.17	-1.49	10.68
J&K	599	-6	0	424	225	0	11.53	2.38	13.91
CHD	-31	0	0	0	34	0	-0.25	0.74	0.49
Rajasthan	812	670	2	812	273	2	20.30	18.42	38.72
UP	73	0	0	109	485	0	0.68	2.64	3.32
Uttarakhand	213	298	46	213	54	25	5.12	10.09	15.21
Total	-74	1152	38	125	1589	27	1.51	41.52	43.03

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	-419	-514	205	0	0	0
Delhi	-247	-902	788	-31	0	-10
Haryana	-894	-1063	115	25	0	0
HP	560	426	46	-419	0	0
J&K	599	424	225	-18	0	0
CHD	0	-31	83	0	0	0
Rajasthan	949	812	1613	90	2	2
UP	128	-159	775	0	0	0
Uttarakhand	213	213	500	2	46	7

XI. System Constraints:**XII. Grid Disturbance / Any Other Significant Event:****XIII. Weather Conditions For 30.12.2014 :**

Fog

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 :**