

पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिड की पूर्ण स्वामित्व प्राप्त महायक कंपनी)



उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 20.12.2014
Date of Reporting : 21.12.2014

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
38526	2968	41494	50.11	28953	2281	31234	50.09	803.6	54.42

* 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	49.27	8.02		57.29	37.71	37.42	-0.29	94.70	0.00
Haryana	50.93	0.49		51.41	58.80	58.33	-0.47	109.74	0.26
Rajasthan	107.26	5.06	7.55	119.87	81.22	85.34	4.12	205.20	0.00
Delhi	18.60			18.60	45.05	45.42	0.37	64.02	0.00
UP	141.70	4.20		145.90	78.90	77.44	-1.45	223.34	44.92
Uttarakhand		7.05		7.05	25.96	27.28	1.32	34.33	1.55
HP		4.44		4.44	20.21	20.17	-0.04	24.61	0.00
J & K		5.21	0.00	5.21	35.25	38.41	3.16	43.62	7.70
Chandigarh				0.00	3.46	4.07	0.27	4.07	0.00
Total	367.75	34.47	7.55	409.77	386.56	393.88	6.98	803.65	54.42

* 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	4808	0	-76	-434	3071	0	78	-379	5194
Haryana	5692	595	-18	-769	3764	0	51	-880	5692
Rajasthan	9309	0	384	1106	7826	0	-63	1486	9557
Delhi	3211	0	88	-91	1814	0	159	-714	3585
UP	10432	1975	-192	91	8845	1990	30	69	10432
Uttarakhand	1787	75	113	695	1137	0	53	485	1794
HP	1244	0	57	392	751	0	7	416	1299
J&K	1831	323	41	596	1649	291	3	634	1970
Chandigarh	213	0	26	0	95	0	8	-31	224
Total	38526	2968	423	1587	28953	2281	326	1087	38526

* 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	1447	1583	1545	37.30	1554	34.34	2.96
Rihand I STPS (2*500)	1000	666	418	659	16.04	668	14.78	1.26
Rihand II STPS (2*500)	1000	970	1040	770	23.54	981	22.11	1.43
Rihand III STPS (2*500)	1000	973	1024	757	22.55	940	21.36	1.19
Dadri I STPS (4*210)	840	615	601	455	13.02	543	12.26	0.76
Dadri II STPS (2*490)	980	980	998	714	21.15	881	20.33	0.82
Unchahar I TPS (2*210)	420	406	441	319	9.56	398	8.89	0.66
Unchahar II TPS (2*210)	420	275	414	139	6.34	264	6.03	0.31
Unchahar III TPS (1*220)	210	201	221	138	4.65	194	4.31	0.34
I-STPP (Jhajhar) (3*500)	1500	1057	1066	873	23.46	978	22.92	0.54
Dadri GPS (4*130.19+2*154.51)	830	835	301	269	6.86	286	6.80	0.06
Anta GPS (3*88.71+1*153.2)	419	425	213	190	5.42	226	5.36	0.06
Auraiya GPS (4*111.19+2*109.30)	663	666	194	235	5.20	217	5.36	-0.17
Dadri Solar	5	1	0	0	0.01	1	0.02	-0.01
Unchahar Solar	10	3	0	0	0.01	1	0.07	-0.06
Sub Total (A)	11297	9520	8514	7063	195	8130	185	10
B. NPC								
NAPS (2*220)	440	298	346	336	7.19	300	7.15	0.04
RAPS- B (2*220)	440	414	459	458	9.89	412	9.94	-0.05
RAPS- C (2*220)	440	220	239	239	5.07	211	5.28	-0.21
Sub Total (B)	1320	932	1044	1033	22.15	923	22.37	-0.22
C. NHPC								
Chamera I HPS (3*180)	540	356	180	0	2.21	92	2.10	0.11
Chamera III HPS (3*100)	300	300	205	0	1.27	53	1.20	0.07
Chamera III HPS (3*77)	231	154	160	0	0.70	29	0.65	0.05
Bairasuli HPS(3*60)	180	179	121	0	0.53	22	0.48	0.05
Salal-HPS (6*115)	690	123	220	120	3.11	129	2.96	0.15
Tanakpur-HPS (3*40)	94	32	43	33	0.84	35	0.77	0.08
Uri-I HPS (4*120)	480	120	211	61	3.07	128	2.88	0.20
Uri-II HPS (4*60)	240	0	0	0	0.00	0	0.00	0.00
Dhauliganga-HPS (4*70)	280	139	137	0	0.95	40	0.90	0.05
Dulhasti-HPS (3*130)	390	387	391	0	2.89	121	2.80	0.09
Sewa-II HPS (3*40)	120	119	84	0	0.37	15	0.36	0.01
Parbati 3 (4*130)	520	0	0	0	0.00	0	0.00	0.00
Sub Total (C)	4065	1909	1753	214	16	664	15	1
D. SJVNL								
NJPC (6*250)	1500	1605	957	0	6.74	281	6.60	0.14
Rampur HEP (4*68.67)	275	420	284	0	1.92	80	1.84	0.08
Sub Total (D)	1775	2025	1241	0	8.66	361	8.44	0.21
E. THDC								
Tehri HPS (4*250)	1000	1060	999	0	8.36	348	8.20	0.16
Koteshwar HPS (4*100)	400	104	200	91	2.53	105	2.50	0.03
Sub Total (E)	1400	1164	1199	91	10.89	454	10.70	0.19
F. BBMB								
Bhakra HPS (3*108+2*126+6*157)	1514	536	1046	349	13.13	547	12.85	0.27
Dehar HPS (6*165)	990	137	165	0	3.32	138	3.29	0.03
Pong HPS (6*66)	396	243	318	0	5.81	242	5.84	-0.04
Sub Total (F)	2900	916	1529	349	22.25	927	21.98	0.27
G. IPP(s)/JV(s)								
ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	36	0	0.51	21	0.49	0.02
KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	600	0	3.55	148	3.48	0.07
Malana Stg-II HPS (2*50)	100	0	0	0	0.17	7	0.16	0.01
Shree Cement TPS (2*150)	300	0	278	209	6.25	261	6.24	0.01
Budhil HPS(IPP)	70	0	36	0	0.14	6	0.15	0.00
Sub Total (G)	1662	0	949	209	10.63	443	10.52	0.11
H. Total Regional Entities (A-G)	24419	16465	16230	8959	285.63	11901	274.04	11.59

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	680	690	16.76	698
	Guru Nanak Dev TPS(Bhatinda) (4*110)	440	115	115	2.43	101
	Guru Hargobind Singh TPS(L.mbt) (2*210+2*250)	920	373	467	9.84	410
	Goindwal(GVK)		0	0	0.00	0
	Rajpura (2*700)	1400	454	349	12.20	508
	Talwandi Saboo (1*660)	660	341	340	8.04	335
	Thermal (Total)	4680	1963	1961	49.27	2053
	Total Hydro	1148	424	208	8.02	334
Total Punjab	5828	2387	2169	57.29	2387	
Haryana	Panipat TPS (4*110+2*210+2*250)	1367	784	827	17.97	749
	DCRTPP (Yamuna nagar) (2*300)	600	280	247	6.37	265
	Faridabad GPS (NTPC)	432	0	0	0.00	0
	RGTPP (khedar) (IPP) (2*600)	1200	584	376	13.16	548
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP) (2*660)	1320	598	364	13.43	559
	Thermal (Total)	4944	2246	1814	50.93	2122
	Total Hydro	62	16	25	0.49	20
	Total Haryana	5006	2262	1839	51.41	2142
	Rajasthan	kota TPS (2*110+2*195+3*210)	1240	1023	962	23.12
suratgarh TPS (6*250)		1500	1329	1159	29.71	1238
Chabra TPS (3*250)		750	655	593	15.61	650
Dholpur GPS (3*110)		330	0	113	0.95	39
Ramgarh GPS (1*3 + 1*35.5 +2*37.5 +1*110 +1*50)		271	5	191	1.22	51
RAPS A (NPC) (1*100+1*200)		300	150	150	4.13	172
Barsingsar (NLC) (2*125)		250	183	183	4.32	180
Giral LTPS (2*125)		250	76	75	1.41	59
Rajwest LTPS (IPP) (8*135)		1080	730	452	14.22	592
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	577	471	12.58	524
Thermal (Total)		8026	4728	4349	107	4469
Total Hydro		550	191	127	5.06	211
Wind power		2798	139	597	6.50	271
Biomass		99	39	39	0.93	39
Solar		730	1	0	0.13	5
Renewable/Others (Total)		3627	179	636	7.55	314
Total Rajasthan		12203	5098	5112	119.87	4994
UP		Anpara TPS (3*210+2*500)	1630	1353	1309	31.90
	Obra TPS (2*50+2*94+5*200)	1194	345	334	8.10	338
	Paricha TPS (2*110+2*220+2*250)	1140	726	668	17.20	717
	Panki TPS (2*105)	210	54	63	1.50	63
	Harduaganj TPS (1*60+1*105+2*250)	665	492	490	11.80	492
	Tanda TPS (NTPC) (4*110)	440	291	223	6.50	271
	Roza TPS (IPP) (4*300)	1200	1017	765	22.30	929
	Anpara-C (IPP) (2*600)	1200	1008	1017	23.20	967
	Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)	450	0	0	0.00	0
	Thermal (Total)	8129	5286	4869	122.50	5104
	Vishnuparyag HPS (IPP)	400	85	84	2.00	83
	Other Hydro	527	97	91	2.20	92
	Cogeneration	981	800	800	19.20	800
	Total UP	10037	6268	5844	145.90	5996
	Uttarakhand	Total Hydro	1398	421	209	7.05
Total Uttarakhand		1398	421	209	7.05	294
Delhi	Raighat TPS (2*67.5)	135	0	0	-0.01	0
	Delhi Gas Turbine (6x30 + 3x34)	282	82	81	1.90	79
	Pragati Gas Turbine (2x104+ 1x122)	330	154	157	3.76	157
	Rithala GPS (3*36)	95	0	0	0.00	0
	Bawana GPS (6*250)	1370	352	234	7.41	309
	Badarpur TPS (NTPC) (3*95+2*210)	705	209	215	5.54	231
	Thermal (Total)	2917	797	687	18.60	775
Total Delhi	2917	797	687	18.60	775	
HP	Baspa HPS (IPP) (2*150)	300	30	0	1.00	42
	Malana HPS (IPP) (2*43)	86	0	0	0.00	0
	Other Hydro	728	169	81	3.44	143
	Total HP	1114	199	81	4.44	185
J & K	Baqilhar HPS (IPP) (3*150)	450	268	120	3.91	163
	Other Hydro/IPP	436	87	39	1.30	54
	Gas/Diesel/Others	209	0	0	0.00	0
	Total J & K	1094	355	159	5.21	217
Total State Control Area Generation		39597	17787	16100	409.77	16990
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			6015.392	5594.1	151.06	6294
Total Regional Availability(Gross)		64017	40032	30653	846.46	35186

IV. Total Hydro Generation:

Regional Entities Hydro	11432	6359	654	61.97	2582
State Control Area Hydro	5684	1703	900	34.47	1353
Total Regional Hydro	17116	8062	1554	96.43	3935

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	500	0	9.55	0.00	9.55
Gwalior-Agra (D/C)	1788	1864	2288	0	46.33	0.00	46.33
Zerda-Kankroli	-29	-120	50	161	0.00	0.72	-0.72
Zerda-Bhinmal	56	-43	199	94	1.69	0.00	1.69
Malanpur-Auraiya	-30	-35	0	80	0.00	1.09	-1.09
Badod-Kota/Morak	3	-73	23	88	0.00	0.59	-0.59
Mundra-Mohindergarh(HVDC)	2199	2001	2207	0	51.28	0.00	51.28
Vindhychal - Rihand	0	0	0	0	0.00	0.00	0.00
Sub Total WR	4487	3894			108.85	2.40	106.45
Pusauli Bypass	425	425	425	0	10.30	0.00	10.30
MZP- GKP (D/C)	50	502	502	0	5.10	0.00	5.10
Patna-Balia(D/C)	667	704	872	0	18.26	0.00	18.26
B'Sharif-Balia (D/C)	128	59	365	46	3.54	0.00	3.54
Pusauli-Balia	-144	-156	0	198	0.00	3.36	-3.36
Gaya-Fatehpur (765 Kv)	298	143	528	0	7.30	0.00	7.30
Pusauli-Sahupuri	153	150	180	0	3.19	0.00	3.19
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-30	-38	0	46	0.00	0.88	-0.88
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	-18	-89	249	131	1.17	0.00	1.17
Sub Total ER	1528	1700			48.85	4.24	44.61
Total IR Exch	6015	5594			157.70	6.64	151.06

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
26.72	0.45	27.17	10.07	-5.22	1.12	25.35	2.29	-2.29

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
40.64	92.68	133.32	44.61	106.45	151.06	3.97	13.76	17.74

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	0.81	8.78	30.91	62.59	47.26	14.40	7.45	0.08	NA

←----- Frequency (Hz) ----->				Average Frequency Hz	Frequency Variation Index	Std. Dev. (Hz)	Frequency in 15 Min Block	
Maximum		Minimum					MAX	MIN
Freq	Time	Freq	Time					
50.21	23.59.20	49.66	9.17.40	49.96	0.13	0.11	50.21	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	415	03:20	402	15:25	0.0	0.0	0.0	0.0
Gorakhpur	400	413	00:00	392	16:20	0.0	0.0	0.0	0.0
Bareilly	400	425	04:04	400	14:49	0.0	0.0	20.2	0.0
Kanpur	400	423	04:01	398	11:03	0.0	0.0	16.3	0.0
Dadri	400	425	04:01	403	09:53	0.0	0.0	22.5	0.0
Ballabgarh	400	431	04:00	404	11:40	0.0	0.0	35.8	0.5
Bawana	400	430	04:00	407	14:44	0.0	0.0	30.5	0.0
Bassi	400	426	05:02	387	09:42	0.0	1.2	12.7	0.0
Hissar	400	420	04:00	396	12:20	0.0	0.0	0.0	0.0
Moga	400	425	03:58	401	11:39	0.0	0.0	22.0	0.0
Abdullapur	400	427	03:59	396	14:44	0.0	0.0	23.8	0.0
Nalagarh	400	428	04:00	409	18:16	0.0	0.0	30.5	0.0
Kishenpur	400	424	23:57	388	18:13	0.0	1.1	0.1	0.0
Wagoora	400	414	23:58	361	18:13	23.1	64.8	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	780	02:00	733	11:43	0.0	20.2	0.0	0.0
Balia	765	781	05:03	734	16:27	0.0	13.4	0.0	0.0
Moga	765	804	04:00	761	11:40	0.0	0.0	4.2	0.0
Agra	765	797	04:02	748	11:41	0.0	0.0	0.0	0.0
Bhiwani	765	808	00:23	774	09:17	0.0	0.0	12.9	0.0
Unnao	765	776	05:03	731	14:45	0.0	35.8	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 (m ³ /s)	Usage (m ³ /s)
Bhakra	513.59	445.62	499.71	1076.64	504.10	1272.20	134.42	367.18
Pong	426.72	384.05	407.20	407.15	413.64	622.40	78.66	404.48
Tehri	829.79	740.04	813.45	870.00	816.60	935.00	47.41	191.00
Koteshwar	612.50	598.50	610.35	4.69	610.30	4.95	191.00	168.00
Chamera-I	760.00	748.75	759.01	0.00	0.00	0.00	52.39	59.43
Rihand	268.22	252.98	853.00	304.50	856.80	369.40	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	507.86	2.18	512.54	3.08	57.66	103.72

* 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	-416	38	0	-436	3	0	-11.06	0.68	-10.39
Delhi	-653	-31	-31	-472	391	-10	-11.42	5.32	-6.10
Haryana	-1043	163	0	-880	111	0	-25.44	2.93	-22.52
HP	477	-61	0	448	-56	0	12.08	-2.76	9.32
J&K	634	0	0	413	183	0	11.77	2.38	14.15
CHD	-31	0	0	0	0	0	-0.24	0.00	-0.24
Rajasthan	850	636	0	850	256	0	25.09	10.17	35.25
UP	69	0	0	91	0	0	1.19	0.00	1.19
Uttarakhand	214	223	48	214	462	19	5.14	9.82	14.97
Total	103	968	17	228	1349	9	7.09	28.54	35.63

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	-416	-511	246	0	0	0
Delhi	-268	-653	597	-38	-10	-31
Haryana	-636	-1212	165	84	0	0
HP	543	428	10	-548	0	0
J&K	634	413	232	-190	0	0
CHD	0	-31	20	0	0	0
Rajasthan	1291	850	772	71	0	0
UP	116	-26	0	0	0	0
Uttarakhand	214	214	515	206	48	0

XI. System Constraints:**XII. Grid Disturbance / Any Other Significant Event:****XIII. Weather Conditions For 20.12.2014 :**

Light 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 :**