

पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिस्टम की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 31.12.2013
Date of Reporting : 01.01.2014

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
34776	2425	37201	50.10	24123	0	24123	50.62	723.8	29.76

* 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	42.58	8.90		51.47	36.64	38.02	1.38	89.49	0.00
Haryana	61.21	0.36		61.57	35.71	36.67	0.96	98.24	0.07
Rajasthan	95.16	4.60	10.98	110.74	73.55	72.60	-0.95	183.34	0.00
Delhi	19.91			19.91	44.60	45.25	0.64	65.16	0.03
UP	111.83	2.80	14.40	129.03	65.96	66.42	0.46	195.45	27.32
Uttarakhand		9.96		9.96	18.95	19.39	0.45	29.35	0.65
HP		4.88		4.88	19.68	21.73	2.04	26.60	0.00
J & K		7.22	0.00	7.22	29.73	25.21	-4.52	32.43	1.70
Chandigarh				0.00	3.23	3.78	0.55	3.78	0.00
Total	330.69	38.71	25.38	394.77	328.05	329.06	1.01	723.84	29.76

* 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				Day Energy MU	
	Demand Met	Shortage	UI	STOA/PX transaction	Demand Met	Shortage	UI	STOA/PX transaction	STOA/PX transaction	
Punjab	4553	0	-117	-430	2796	0	191	-248	-6.88	
Haryana	5354	0	64	-882	3389	0	28	-803	-22.51	
Rajasthan	8455	0	-341	1151	6302	0	-380	864	33.17	
Delhi	3357	0	109	-438	1420	0	56	-1469	-19.30	
UP	8646	2285	-93	186	7044	0	-65	-168	-5.11	
Uttarakhand	1623	40	71	540	820	0	-41	377	9.36	
HP	1341	0	83	310	782	0	44	354	8.53	
J&K	1250	100	-383	615	1482	0	7	534	10.93	
Chandigarh	198	0	7	0	88	0	-3	0	-0.08	
Total	34776	2425	-600	1054	24123	0	-162	-559	8.11	

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

III. Regional Entities :

Entity	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	
										UI (OG:(+ve), UG: (-ve))
A. NTPC	Singrauli STPS	2000	1946	2087	1475	41.93	1747	42.00	-0.07	
	Rihand I STPS	1000	876	982	600	18.58	774	17.53	1.05	
	Rihand II STPS	1000	930	1044	696	19.85	827	19.41	0.44	
	Rihand III STPS	1000	460	524	328	9.98	416	9.80	0.17	
	Dadri I STPS	840	815	584	443	12.92	538	13.14	-0.23	
	Dadri II STPS	980	985	861	692	20.15	840	20.68	-0.53	
	Unchahar I TPS	420	407	218	305	4.79	200	5.31	-0.53	
	Unchahar II TPS	420	404	406	308	8.18	341	8.20	-0.02	
	Unchahar III TPS	210	177	205	152	3.48	145	3.57	-0.09	
	ISTPP (Jhajjar)	1500	1445	629	598	13.28	553	13.91	-0.63	
	Dadri GPS	830	842	421	273	8.73	364	9.11	-0.38	
	Anta GPS	419	427	276	227	6.25	260	6.46	-0.21	
	Auraiya GPS	663	674	163	151	3.75	156	3.82	-0.07	
	Sub Total (A)	11282	10388	8400	6248	171.85	7160	172.94	-1.10	
	B. NPC	NAPS	440	324	364	365	7.69	321	7.78	-0.08
		RAPS- B	440	424	464	463	10.10	421	10.18	-0.07
RAPS- C		440	430	475	473	10.22	426	10.32	-0.10	
Sub Total (B)		1320	1178	1303	1301	28.01	1167	28.27	-0.26	
C. NHPC	Chamera I HPS	540	360	360	0	1.58	66	1.40	0.17	
	Chamera II HPS	300	300	199	0	1.21	51	1.19	0.02	
	Chamera III HPS	231	231	156	0	0.58	24	0.63	-0.05	
	Bairasuil HPS	180	182	120	10	0.67	28	0.45	0.22	
	Salal-HPS	690	141	134	70	2.94	122	3.09	-0.16	
	Tanakpur-HPS	94	25	32	27	0.65	27	0.60	0.05	
	Uri-HPS	480	80	149	4	2.47	103	2.08	0.39	
	Uri-II HPS	120	59	73	33	1.38	58	1.43	-0.04	
	Dhauliganga-HPS	280	0	0	0	0.00	0	0.00	0.00	
	Dulhasti-HPS	390	258	268	0	2.41	100	2.36	0.06	
	Sewa-II HPS	120	119	105	0	0.41	17	0.42	-0.02	
	Sub Total (C)	3425	1756	1596	144	14.29	595	13.64	0.65	
D. NJPC	Nathpa Jhakri	1500	1218	984	0	6.97	290	6.62	0.35	
	Sub Total (D)	1500	1218	984	0	6.97	290	6.62	0.35	
E. THDC	Tehri HPS	1000	1040	1044	0	8.74	364	8.70	0.04	
	Koteswar HPS	400	125	301	0	3.03	126	3.00	0.03	
	Sub Total (E)	1400	1165	1345	0	11.76	490	11.70	0.06	
F. BBMB	Bhakra HPS	1497	665	1023	455	16.88	703	15.96	0.92	
	Dehar HPS	990	114	330	0	2.90	121	2.73	0.17	
	Pong HPS	396	273	372	0	6.01	250	6.56	-0.55	
	Sub Total (F)	2883	1052	1725	455	25.79	1075	25.24	0.55	
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	0	0	0.46	19	0.44	0.02	
	KWHEP HPS(IPP)	1000	0	353	0	3.53	147	3.61	-0.08	
	Malana Stg-II HPS	100	0	0	0	0.16	7	0.15	0.01	
	Shree Cement TPS	300	0	249	148	5.21	217	5.21	-0.01	
	Budhil HPS(IPP)	70	0	0	0	0.00	0	0.00	0.00	
	Sub Total (G)	1662	0	602	148	9.36	390	9.41	-0.05	
H. Total Regional Entities (A-G)	23472	16756	15955	8296	268.03	11168	267.84	0.19		

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)	1260	800	600	17.64	735	
	Guru Nanak Dev TPS(Bhatinda)	440	342	250	6.24	260	
	Guru Hargobind Singh TPS(L.mbt)	920	971	654	18.69	779	
	Goindwal(GVK)		0	0	0.00	0	
	Thermal (Total)	2620	2113	1504	42.58	1774	
	Total Hydro	1148	430	276	8.90	371	
	Total Punjab	3768	2543	1780	51.47	2145	
Haryana	Panipat TPS	1367	613	775	16.73	697	
	DCRTPP (Yamuna nagar)	600	544	522	12.04	501	
	Faridabad GPS (NTPC)	432	0	0	0.00	0	
	RGTPP (khedar) (IPP)	1200	587	466	11.59	483	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	1320	1197	744	20.86	869	
	Thermal (Total)	4944	2941	2507	61.21	2550	
	Total Hydro	62	15	15	0.36	15	
		Total Haryana	5006	2956	2522	61.57	2566
	Rajasthan	kota TPS	1240	1189	1109	26.41	1101
suratgarh TPS		1500	852	799	18.47	770	
Chabra TPS		500	344	389	7.54	314	
Dholpur GPS		330	129	116	2.95	123	
Ramgarh GPS		111	84	63	3.17	132	
RAPS A (NPC)		300	175	175	4.08	170	
Barsingsar (NLC)		250	213	171	4.64	193	
Giral LTPS		250	66	53	1.23	51	
Rajwest LTPS (IPP)		1080	598	314	11.82	492	
VSLP LTPS (IPP)		135	0	0	0.00	0	
Kalisindh Thermal		600	0	0	0.00	0	
Kawai(Adani)		660	615	613	14.85	619	
Thermal (Total)		6956	4265	3802	95.16	3965	
Total Hydro		550	175	141	4.60	192	
Wind power		2191	369	372	9.85	410	
Biomass		91	26	26	0.62	26	
Solar		201	5	0	0.51	21	
Renewable/Others (Total)		2483	395	398	10.98	457	
		Total Rajasthan	9989	4835	4341	110.74	4614
UP		Anpara TPS	1630	1385	1156	28.60	1192
	Obra TPS	1288	517	467	11.00	458	
	Paricha TPS	1140	669	657	14.60	608	
	Panki TPS	210	85	70	1.80	75	
	Harduaganj TPS	665	247	238	5.70	238	
	Tanda TPS (NTPC)	440	400	338	9.18	383	
	Roza TPS (IPP)	1200	581	576	14.54	606	
	Anpara-C (IPP)	1200	750	654	19.61	817	
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	281	283	6.80	283	
	Thermal (Total)	8223	4915	4439	111.83	4660	
	Vishnuparyag HPS (IPP)	400	0	0	0.00	0	
	Other Hydro	527	88	95	2.80	117	
	Cogeneration	981	600	600	14.40	600	
		Total UP	10131	5603	5134	129.03	5376
	Uttarakhand	Total Hydro	1303	578	250	9.96	415
Total Uttarakhand		1303	578	250	9.96	415	
Delhi	Raighat TPS	135	0	0	0.00	0	
	Delhi Gas Turbine	282	80	80	1.90	79	
	Pragati Gas Turbine	330	322	265	7.44	310	
	Riithala GPS	95	0	0	0.00	0	
	Bawana GPS	686	0	0	0.00	0	
	Badarpur TPS (NTPC)	705	510	410	10.57	440	
	Thermal (Total)	2232	912	755	19.91	830	
		Total Delhi	2232	912	755	19.91	830
HP	Baspa HPS (IPP)	330	42	0	1.43	59	
	Malana HPS (IPP)	86	0	0	0.20	8	
	Other Hydro	589	177	81	3.25	136	
		Total HP	1005	219	81	4.88	203
J & K	Baglihar HPS (IPP)	450	292	120	4.64	193	
	Other Hydro	323	90	124	2.58	108	
	Gas/Diesel/Others	183	0	0	0.00	0	
		Total J & K	956	382	244	7.22	301
Total State Control Area Generation		34390	18028	15107	394.77	16449	
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			3911	1682	64.47	2686	
Total Regional Availability(Gross)		57862	37894	25085	727.27	30303	

IV. Total Hydro Generation:

Regional Entities Hydro	10500	6003	599	62.96	2623
State Control Area Hydro	5368	1887	1102	38.71	1613
Total Regional Hydro	15868	7890	1701	101.67	4236

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	-50	-450	500	500	1.80	5.78	-3.98
Gwalior-Agra (D/C)	1144	814	1767	0	28.05	0.00	28.05
Zerda-Kankroli	-103	-212	32	291	0.00	2.67	-2.67
Zerda-Bhinmal	-29	-106	148	219	0.00	0.37	-0.37
Malanpur-Auraiya	-65	-67	0	142	0.00	19.61	-19.61
Badod-Kota/Morak	-42	-149	0	177	0.00	1.90	-1.90
Mundra-Mohindergarh(HVDC)	1702	999	1803	0	34.61	0.00	34.61
Sub Total WR	2557	829			64.46	30.33	34.13
Pusaui Bypass	448	-232	0	459	0.00	6.74	-6.74
MZP- GKP (D/C)	177	224	574	0	7.94	0.00	7.94
Patna-Balia(D/C)	419	453	781	0	13.03	0.00	13.03
B'Sharif-Balia (D/C)	110	186	372	0	5.20	0.00	5.20
Pusaui-Balia	-51	3	2	51	0.00	0.42	-0.42
Gaya-Fatehpur (765 Kv)	40	-26	221	72	1.56	0.00	1.56
Pusaui-Sahupuri	131	144	193	0	3.64	0.00	3.64
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-32	-30	0	37	0.00	0.86	-0.86
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	112	131	484	0	7.00	0.00	7.00
Sub Total ER	1354	853			38.35	8.02	30.34
Total IR Exch	3911	1682			102.81	38.34	64.47

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
30.86	0.41	31.27	15.62	-15.46	10.28	-5.13	4.17	-4.17

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
61.35	27.80	89.15	30.34	34.13	64.47	-31.01	6.33	-24.68

VI. Frequency Profile <----- % of Time Frequency ----->

<48.80	<49.0	<49.20	<49.50	<49.7	49.5 - 50.2	49.7-49.8	49.7 - 50.2	> 50.00	> 50.2
0.00	0.00	0.00	0.00	0.30	75.90	2.20	75.60	60.30	24.10

<----- 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				
50.69	2.30	49.63	8.41	50.09	0.48	0.20	50.68	49.86

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	02:28	402	09:06	0.0	0.0	0.0	0.0
Gorakhpur	400	425	04:45	410	07:02	0.0	0.0	44.5	0.0
Barilly	400	426	04:20	405	11:40	0.0	0.0	0.0	0.0
Kanpur	400	428	03:05	404	11:19	0.0	0.0	25.3	0.0
Dadri	400	431	03:03	407	11:09	0.0	0.0	27.3	0.4
Ballabgarh	400	439	02:59	410	11:19	0.0	0.0	49.8	24.3
Bawana	400	434	03:10	409	11:19	0.0	0.0	44.2	11.2
Bassi	400	433	04:01	396	11:19	0.0	0.0	26.0	2.7
Hissar	400	420	03:04	396	15:13	0.0	0.0	0.0	0.0
Moga	400	428	03:10	407	08:42	0.0	0.0	41.1	0.0
Abdullapur	400	428	03:00	408	18:06	0.0	0.0	33.8	0.0
Nalagarh	400	430	00:02	408	15:16	0.0	0.0	41.1	0.0
Kishenpur	400	427	23:49	406	00:39	0.0	0.0	7.8	0.0
Wagoora	400	422	23:51	388	00:34	0.0	3.3	1.4	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	793	01:11	752	07:50	0.0	0.0	0.0	0.0
Balia	765	762	00:30	732	06:52	0.0	23.6	0.0	0.0
Moga	765	800	03:10	757	09:06	0.0	0.0	0.0	0.0
Agra	765	824	01:17	770	06:53	0.0	0.0	37.5	0.4
Bhiwani	765	784	13:01	769	15:17	0.0	0.0	0.0	0.0
Unnao	765	781	03:05	738	11:20	0.0	5.1	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	502.63	1205.87	495.37	914.64	174.54	488.32
Pong	426.72	384.05	412.34	577.87	411.06	534.75	87.67	414.39
Tehri	829.79	740.04	813.15	826.27	818.65	982.26	41.77	198.00
Koteswar	612.50	598.50	609.80	4.21	NA	NA	198.00	201.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	38.36	44.52
Rihand	268.22	252.98	260.88	353.80	261.76	404.60	NA	NA
RPS	352.80	343.81	349.28	NA	NA	NA	NA	NA
Jawahar Sagar	298.70	295.78	298.28	NA	NA	NA	NA	NA
RSD	527.91	487.91	511.77	14.40	516.69	14.40	53.83	97.69

* NA: Not Available

X. System Constraints:

XI. Grid Disturbance / Any Other Significant Event:

XII. Weather Conditions For 31.12.2013 :

1. Normal Weather / Rain and snow fall in J& K, HP.

XIII. Synchronisation of new generating units :

1: 660MW unit # 2 Talwandi Saboo TPS (IPP) Punjab first time synchronized with grid at 06.10hrs dt 31.12.13 with generation of 50 MW.

XIV. Synchronisation of new 220 / 400 / 765 KV lines and energising of bus //substation :

1: 400kV Banala-Hamirpur line & Amritsar-Hamirpur line first time charged at 20.17 & 21.36 hrs respectively of dt 31.12.13 after LILO of 400 kV Amritsar-Banala ckt-2 at Hamirpur.
2: 400/220 kV ICT-1 at Hamirpur (PG) first time charged at 22.42 hrs dt 31.12.13.
3: 80 MVAR Bus Reactor at Hamirpur (PG) first time charged at 20.28 hrs dt 31.12.13.
4: 50 MVAR Line Reactor at Hamirpur (PG) first time charged at 21.36 hrs dt 31.12.13.

XV. Tripping of lines in pooling stations :

XVI. Complete generation loss in a generating station :

Vishnuprayag (400MW) and Dhauliganga (280MW) are out of operation since 16.06.2013.
Civil construction is in progress for rectification of the major damages in Plants/Dam caused due to flood Vishnuprayag and Dhauliganga expected by Mar, 2014 .