

पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिड की पूर्ण स्वामित्व प्राप्त महायक कंपनी)



उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 29.11.2014
Date of Reporting : 30.11.2014

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
39070	1525	40595	50.11	29776	464	30239	50.07	813.2	35.62

* 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	55.92	7.61		63.54	46.03	46.99	0.96	110.53	0.00
Haryana	61.74	0.41		62.15	51.78	50.53	-1.25	112.68	0.00
Rajasthan	131.43	4.10	2.49	138.01	70.00	73.06	3.06	211.07	0.00
Delhi	18.24			18.24	39.76	39.70	-0.07	57.93	0.00
UP	131.38	3.19		134.57	90.09	87.12	-2.97	221.70	26.21
Uttarakhand		6.97		6.97	25.36	24.73	-0.63	31.70	0.12
HP		5.12		5.12	19.30	18.97	-0.32	24.09	0.00
J & K		5.13	0.00	5.13	31.73	34.99	3.27	40.12	9.30
Chandigarh				0.00	3.23	3.35	0.12	3.35	0.00
Total	398.72	32.52	2.49	433.72	377.29	379.45	2.16	813.17	35.62

* 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	5788	0	35	-448	3648	0	47	-473	5788
Haryana	5946	0	-61	-627	3951	0	-100	-592	5946
Rajasthan	9250	0	0	663	8196	0	42	1069	9929
Delhi	3037	7	53	-298	1594	0	78	-952	3093
UP	10053	1000	-449	144	8913	180	-152	76	10299
Uttarakhand	1682	40	-59	603	1038	0	-44	442	1682
HP	1220	0	-85	367	739	0	-28	347	1315
J&K	1913	478	28	467	1608	284	170	435	1925
Chandigarh	181	0	-7	0	89	0	5	-30	181
Total	39070	1525	-545	871	29776	464	18	321	39070

* 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	1500	1615	1616	38.79	1616	36.00	2.79
Rihand I STPS (2*500)	1000	850	919	915	21.93	914	20.35	1.58
Rihand II STPS (2*500)	1000	968	1040	1027	24.37	1016	22.84	1.54
Rihand III STPS (2*500)	1000	475	505	490	11.86	494	11.14	0.72
Dadri I STPS (4*210)	840	798	680	540	16.60	692	16.12	0.49
Dadri II STPS (2*490)	980	980	845	694	21.32	888	21.11	0.21
Unchahar I TPS (2*210)	420	400	420	397	10.06	419	9.31	0.75
Unchahar II TPS (2*210)	420	400	415	380	9.78	407	8.93	0.85
Unchahar III TPS (1*220)	210	200	190	170	4.79	199	4.41	0.37
ISTPP (Jhajhar) (3*500)	1500	1500	1411	939	24.13	1006	25.75	-1.62
Dadri GPS (4*130.19+2*154.51)	830	822	599	417	11.20	467	11.43	-0.23
Anta GPS (3*88.71+1*153.2)	419	410	262	253	6.24	260	6.22	0.02
Auraiva GPS (4*111.19+2*109.30)	663	438	313	282	7.29	304	7.14	0.15
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	9746	9214	8120	208	8684	201	8
B. NPC								
NAPS (2*220)	440	294	322	326	6.92	288	7.06	-0.14
RAPS-B (2*220)	440	406	448	454	9.74	406	9.74	-0.01
RAPS-C (2*220)	440	387	235	466	7.85	327	9.30	-1.45
Sub Total (B)	1320	1087	1005	1246	24.50	1021	26.10	-1.59
C. NHPC								
Chamera I HPS (3*180)	540	534	360	0	1.68	70	1.60	0.08
Chamera II HPS (3*100)	300	197	100	0	1.24	51	1.33	-0.09
Chamera III HPS (3*77)	231	231	108	0	0.69	29	0.67	0.02
Bairasuli HPS(3*60)	180	85	121	0	0.53	22	0.50	0.03
Salal-HPS (6*115)	690	130	220	120	3.32	138	3.12	0.21
Tanakpur-HPS (3*40)	94	31	45	27	0.77	32	0.74	0.03
Uri-I HPS (4*120)	480	166	238	131	4.20	175	3.98	0.22
Uri-II HPS (4*60)	240	0	0	0	0.00	0	0.00	0.00
Dhauliganga-HPS (4*70)	280	208	210	0	1.13	47	1.00	0.13
Dulhasti-HPS (3*130)	390	387	395	0	3.29	137	3.20	0.09
Sewa-II HPS (3*40)	120	119	78	0	0.36	15	0.36	0.00
Parbati 3 (4*130)	520	0	0	0	0.00	0	0.00	0.00
Sub Total (C)	4065	2087	1875	278	17	717	16	1
D. SJVNL								
NJPC (6*250)	1500	1605	1487	0	7.66	319	7.61	0.05
Rampur HEP (4*68.67)	275	350	373	0	2.03	85	2.04	0.00
Sub Total (D)	1775	1955	1860	0	9.69	404	9.64	0.05
E. THDC								
Tehri HPS (4*250)	1000	1060	1060	0	7.39	308	7.30	0.09
Koteshwar HPS (4*100)	400	104	201	90	2.52	105	2.50	0.02
Sub Total (E)	1400	1164	1261	90	9.92	413	9.80	0.12
F. BBMB								
Bhakra HPS (3*108+2*126+6*157)	1514	530	1044	378	13.47	561	12.72	0.75
Dehar HPS (6*165)	990	140	165	140	3.38	141	3.36	0.02
Pong HPS (6*66)	396	191	324	66	4.70	196	4.58	0.12
Sub Total (F)	2900	861	1533	584	21.55	898	20.66	0.89
G. IPP(s)/JV(s)								
ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	0	0	0.55	23	0.54	0.02
KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	770	0	4.12	172	4.03	0.09
Malana Stg-II HPS (2*50)	100	0	0	0	0.25	10	0.23	0.02
Shree Cement TPS (2*150)	300	0	143	84	3.03	126	3.06	-0.03
Budhil HPS(IPP)	70	0	36	0	0.15	6	0.14	0.00
Sub Total (G)	1662	0	949	84	8.09	337	8.01	0.09
H. Total Regional Entities (A-G)	24419	16900	17697	10402	299.36	12473	291.54	7.82

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	560	370	10.71	446
	Guru Nanak Dev TPS(Bhatinda) (4*110)	440	100	90	2.34	98
	Guru Hargobind Singh TPS(L.mbt) (2*210+2*250)	920	462	367	9.79	408
	Goindwal(GVK)		0	0	0.00	0
	Rajpura (2*700)	1400	695	704	20.74	864
	Talwandi Saboo (1*660)	660	614	362	12.34	514
	Thermal (Total)	4680	2431	1893	55.92	2330
	Total Hydro	1148	275	230	7.61	317
Total Punjab	5828	2706	2123	63.54	2647	
Haryana	Panipat TPS (4*110+2*210+2*250)	1367	845	584	17.97	749
	DCRTPP (Yamuna nagar) (2*300)	600	275	242	6.29	262
	Faridabad GPS (NTPC)	432	0	0	0.00	0
	RGTPP (khedar) (IPP) (2*600)	1200	1150	721	22.95	956
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP) (2*660)	1320	617	564	14.54	606
	Thermal (Total)	4944	2887	2111	61.74	2573
	Total Hydro	62	15	17	0.41	17
	Total Haryana	5006	2902	2128	62.15	2590
	Rajasthan	kota TPS (2*110+2*195+3*210)	1240	768	954	21.71
suratgarh TPS (6*250)		1500	998	979	24.73	1030
Chabra TPS (3*250)		750	584	572	13.87	578
Dholpur GPS (3*110)		330	117	133	3.14	131
Ramgarh GPS (1*3 + 1*35.5 +2*37.5 +1*110 +1*50)		271	109	122	3.90	162
RAPS A (NPC) (1*100+1*200)		300	177	166	4.16	173
Barsingsar (NLC) (2*125)		250	92	92	2.11	88
Giral LTPS (2*125)		250	78	90	1.49	62
Rajwast LTPS (IPP) (8*135)		1080	736	734	17.54	731
VS LIGNITE LTPS (IPP) (1*135)		135	0	0	0.00	0
Kalisindh Thermal(1*600)		600	505	495	11.44	476
Kawai(Adani) (2*660)		1320	1171	938	27.36	1140
Thermal (Total)		8026	5335	5275	131	5476
Total Hydro		550	160	91	4.10	171
Wind power		2798	108	148	2.01	84
Biomass		99	15	15	0.37	15
Solar		730	1	0	0.11	5
Renewable/Others (Total)		3627	124	163	2.49	104
Total Rajasthan	12203	5619	5529	138.01	5751	
UP	Anpara TPS (3*210+2*500)	1630	943	948	22.30	929
	Obra TPS (2*50+2*94+5*200)	1194	337	300	8.00	333
	Paricha TPS (2*110+2*220+2*250)	1140	805	779	19.10	796
	Panki TPS (2*105)	210	108	113	2.70	113
	Harduaganj TPS (1*60+1*105+2*250)	665	494	482	11.70	488
	Tanda TPS (NTPC) (4*110)	440	286	286	6.98	291
	Roza TPS (IPP) (4*300)	1200	1058	1082	25.20	1050
	Anpara-C (IPP) (2*600)	1200	1008	1008	23.95	998
	Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)	450	320	237	6.65	277
	Thermal (Total)	8129	5359	5235	126.58	5274
	Vishnuparyag HPS (IPP)	400	100	98	2.32	97
	Other Hydro	527	27	41	0.87	36
	Cogeneration	981	200	200	4.80	200
	Total UP	10037	5686	5574	134.57	5511
Uttarakhand	Total Hydro	1398	482	220	6.97	290
	Total Uttarakhand	1398	482	220	6.97	290
Delhi	Raighat TPS (2*67.5)	135	0	0	-0.01	-1
	Delhi Gas Turbine (6x30 + 3x34)	282	79	80	1.90	79
	Pragati Gas Turbine (2x104+ 1x122)	330	146	152	3.61	150
	Rithala GPS (3*36)	95	0	0	0.00	0
	Bawana GPS (6*250)	1370	312	272	7.23	301
	Badarpur TPS (NTPC) (3*95+2*210)	705	214	222	5.51	230
	Thermal (Total)	2917	751	726	18.24	760
Total Delhi	2917	751	726	18.24	760	
HP	Baspa HPS (IPP) (2*150)	300	30	0	1.19	49
	Malana HPS (IPP) (2*43)	86	0	0	0.22	9
	Other Hydro	728	208	113	3.71	155
	Total HP	1114	238	113	5.12	213
J & K	Baqilhar HPS (IPP) (3*150)	450	296	74	3.27	136
	Other Hydro/IPP	436	97	70	1.86	78
	Gas/Diesel/Others	209	0	0	0.00	0
	Total J & K	1094	393	144	5.13	214
Total State Control Area Generation		39597	18777	16557	433.72	17975
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			2418	3592	97.13	4047
Total Regional Availability(Gross)		64017	38892	30551	830.22	34496

IV. Total Hydro Generation:

Regional Entities Hydro	11432	7299	952	63.29	2637
State Control Area Hydro	5684	1590	856	32.52	1258
Total Regional Hydro	17116	8889	1808	95.81	3895

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	Import	Export	
Vindhychal B/B	50	50	300	50	0.55	1.86	-1.31		
Gwalior-Agra (D/C)	524	1304	1802	0	30.44	0.00	30.44		
Zerda-Kankroli	-130	-137	11	187	0.00	2.65	-2.65		
Zerda-Bhinmal	-52	-33	124	154	0.00	0.09	-0.09		
Malanpur-Auraiya	-140	-134	0	163	0.00	2.99	-2.99		
Badod-Kota/Morak	-75	-160	0	119	4.28	0.00	4.28		
Mundra-Mohindergarh(HVDC)	1259	1351	1804	0	33.73	0.00	33.73		
Vindhychal - Rihand	0	0	0	0	0.00	0.00	0.00		
Sub Total WR	1436	2241			68.99	7.58	61.41		
Pusauli Bypass	400	400	400	0	9.44	0.00	9.44		
MZP- GKP (D/C)	48	148	320	10	2.98	0.00	2.98		
Patna-Balia(D/C)	565	644	837	0	16.31	0.00	16.31		
B'Sharif-Balia (D/C)	-23	17	228	43	1.05	0.00	1.05		
Pusauli-Balia	-133	-118	0	146	0.00	2.64	-2.64		
Gaya-Fatehpur (765 Kv)	95	189	412	0	5.75	0.00	5.75		
Pusauli-Sahupuri	137	119	185	0	2.60	0.00	2.60		
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00		
Son Ngr-Rihand	-28	-36	0	-36	0.00	0.67	-0.67		
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00		
Sasaram - Fatehpur(765 KV)	-79	-12	196	80	0.90	0.00	0.90		
Sub Total ER	982	1351			39.02	3.30	35.72		
Total IR Exch	2418	3592			108.01	10.88	97.13		

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
22.02	0.71	22.73	6.38	-14.14	9.24	11.63	4.97	-4.97

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
43.32	59.66	102.99	35.72	61.41	97.13	-7.61	1.75	-5.86

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	0.21	4.31	23.61	61.32	56.39	13.54	6.04	0.42	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				
50.32	0.00	49.69	9.23	49.97	0.10	0.09	50.27	49.83

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	407	23:53	398	05:48	0.0	0.0	0.0	0.0
Gorakhpur	400	409	02:01	395	17:29	0.0	0.0	0.0	0.0
Bareilly	400	420	20:48	396	18:13	0.0	0.0	0.0	0.0
Kanpur	400	418	00:00	402	12:34	0.0	0.0	0.0	0.0
Dadri	400	419	20:49	403	09:50	0.0	0.0	0.0	0.0
Ballabgarh	400	426	00:00	408	09:41	0.0	0.0	34.0	0.0
Bawana	400	426	00:00	408	18:24	0.0	0.0	30.7	0.0
Bassi	400	426	20:48	396	09:12	0.0	0.0	8.6	0.0
Hissar	400	415	00:00	397	09:48	0.0	0.0	0.0	0.0
Moga	400	423	01:58	403	17:53	0.0	0.0	19.7	0.0
Abdullapur	400	426	20:50	396	18:26	0.0	0.0	27.6	0.0
Nalagarh	400	426	05:02	403	14:46	0.0	0.0	18.5	0.0
Kishenpur	400	428	02:58	392	18:16	0.0	0.0	20.5	0.0
Wagoora	400	416	13:03	359	18:18	21.9	51.5	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	775	00:00	744	12:38	0.0	0.0	0.0	0.0
Balia	765	766	02:02	746	16:53	0.0	0.0	0.0	0.0
Moga	765	802	00:00	766	18:16	0.0	0.0	0.5	0.0
Agra	765	791	00:00	758	09:24	0.0	0.0	0.0	0.0
Bhiwani	765	0	00:00	0	00:00	100.0	100.0	0.0	0.0
Unnao	765	758	02:02	734	12:33	0.0	30.3	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	503.26	1232.31	508.10	1455.60	132.21	385.25
Pong	426.72	384.05	410.36	504.32	417.13	768.49	66.66	306.70
Tehri	829.79	740.04	818.40	970.00	820.55	1013.00	63.53	165.00
Koteshwar	612.50	598.50	610.18	4.69	610.10	4.69	165.00	167.00
Chamera-I	760.00	748.75	759.58	0.00	0.00	0.00	45.26	45.26
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	509.20	1.76	514.91	2.90	41.19	101.74

* 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	-482	9	0	-457	9	0	-11.17	1.65	-9.52
Delhi	-886	-51	-16	-575	293	-16	-14.34	1.41	-12.93
Haryana	-777	185	0	-761	134	0	-19.77	3.62	-16.15
HP	423	-76	0	399	-32	0	9.51	-2.53	6.98
J&K	411	25	0	335	132	0	7.34	1.96	9.30
CHD	-30	0	0	0	0	0	-0.24	0.08	-0.16
Rajasthan	491	576	2	497	164	2	11.83	10.32	22.15
UP	76	0	0	144	0	0	2.55	0.00	2.55
Uttarakhand	294	148	0	294	310	0	7.05	7.06	14.11
Total	-481	815	-14	-125	1009	-14	-7.25	23.57	16.33

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	-457	-482	269	0	0	0
Delhi	-465	-886	402	-127	-16	-16
Haryana	-761	-980	187	117	0	0
HP	423	379	98	-619	0	0
J&K	411	237	147	-10	0	0
CHD	0	-30	20	0	0	0
Rajasthan	497	491	603	7	2	2
UP	153	76	0	0	0	0
Uttarakhand	294	294	447	148	0	0

XI. System Constraints:**XII. Grid Disturbance / Any Other Significant Event:****XIII. Weather Conditions For 29.11.2014 :**
Normal**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 :**