

पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिड की पूर्ण स्वामित्व प्राप्त महायुक्त कंपनी)



उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 19.11.2014
Date of Reporting : 20.11.2014

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
37480	1765	39245	50.09	28273	1965	30238	50.04	771.5	58.89

* 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	42.03	6.78		48.80	49.51	51.13	1.62	99.94	0.00
Haryana	50.88	0.44		51.32	53.64	54.63	1.00	105.95	0.01
Rajasthan	124.82	5.48	2.27	132.56	66.47	67.47	0.50	200.03	0.00
Delhi	20.67			20.67	38.27	37.68	-0.59	58.36	0.00
UP	105.80	3.70	4.80	114.30	93.15	94.93	1.79	209.23	57.81
Uttarakhand		8.13		8.13	22.95	24.29	1.34	32.42	1.08
HP		5.72		5.72	17.55	17.76	0.21	23.48	0.00
J & K		6.90	0.00	6.90	27.99	31.72	3.73	38.62	0.00
Chandigarh				0.00	3.16	3.43	0.27	3.43	0.00
Total	344.20	37.14	7.07	388.41	373.18	383.05	9.87	771.46	58.89

* 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	4897	0	-138	-225	3316	0	60	-253	5370
Haryana	5978	0	53	-592	3449	0	65	-595	5978
Rajasthan	8715	0	-245	376	7770	0	184	985	9496
Delhi	3132	0	33	-549	1523	0	-82	-862	3132
UP	9811	1690	140	138	8706	1965	158	75	9811
Uttarakhand	1660	75	17	449	1122	0	10	428	1669
HP	1210	0	10	23	750	0	-18	396	1334
J&K	1891	0	189	333	1550	0	195	282	2306
Chandigarh	186	0	-5	0	88	0	-2	-31	186
Total	37480	1765	54	-46	28273	1965	570	425	37480

* 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	1356	1483	1487	35.36	1473	32.54	2.82
Rihand I STPS (2*500)	1000	870	941	889	22.38	932	20.65	1.73
Rihand II STPS (2*500)	1000	970	1034	1033	24.35	1015	22.70	1.64
Rihand III STPS (2*500)	1000	395	514	152	9.70	404	9.30	0.40
Dadri I STPS (4*210)	840	788	702	536	16.87	703	16.31	0.55
Dadri II STPS (2*490)	980	980	851	686	20.33	847	20.84	-0.51
Unchahar I TPS (2*210)	420	400	389	392	10.03	418	9.31	0.72
Unchahar II TPS (2*210)	420	200	169	167	4.88	203	4.46	0.42
Unchahar III TPS (1*220)	210	200	163	153	4.55	189	4.16	0.39
I-STPP (Jhajjar) (3*500)	1500	1500	1151	906	21.74	906	22.86	-1.12
Dadri GPS (4*130.19+2*154.51)	830	819	609	503	13.29	554	13.18	0.12
Anta GPS (3*88.71+1*153.2)	419	407	266	248	6.16	257	6.33	-0.17
Auraiba GPS (4*111.19+2*109.30)	663	434	280	271	6.83	285	6.74	0.09
Dadri Solar	5	1	0	0	0.02	1	0.03	-0.01
Unchahar Solar	10	3	0	0	0.03	1	0.07	-0.03
Sub Total (A)	11297	9323	8552	7423	197	8188	189	7
B. NPC								
NAPS (2*220)	440	293	328	331	7.02	292	7.03	-0.02
RAPS- B (2*220)	440	408	451	450	9.77	407	9.79	-0.02
RAPS- C (2*220)	440	410	455	456	9.87	411	9.84	0.03
Sub Total (B)	1320	1111	1234	1237	26.66	1111	26.66	-0.01
C. NHPC								
Chamera I HPS (3*180)	540	534	548	0	1.74	72	1.60	0.13
Chamera II HPS (3*100)	300	200	200	0	1.57	66	1.55	0.02
Chamera III HPS (3*77)	231	231	224	0	0.93	39	0.90	0.03
Bairasuli HPS(3*60)	180	120	120	0	0.68	28	0.62	0.06
Salal-HPS (6*115)	690	152	66	222	3.91	163	3.66	0.25
Tanakpur-HPS (3*40)	94	35	56	16	0.87	36	0.84	0.03
Uri-I HPS (4*120)	480	197	257	211	4.73	197	4.72	0.01
Uri-II HPS (4*60)	240	118	153	122	2.66	111	2.82	-0.15
Dhauliganga-HPS (4*70)	280	208	210	0	1.28	53	1.20	0.08
Dulhasti-HPS (3*130)	390	387	393	137	4.04	168	3.90	0.14
Sewa-II HPS (3*40)	120	79	88	0	0.26	11	0.24	0.02
Parbati 3 (4*130)	520	0	0	0	0.00	0	0.00	0.00
Sub Total (C)	4065	2261	2314	708	23	945	22	1
D.SJVNL								
NJPC (6*250)	1500	1605	1605	0	9.08	378	9.05	0.04
Rampur HEP (4*68.67)	275	350	375	0	2.48	103	2.40	0.08
Sub Total (D)	1775	1955	1980	0	11.56	482	11.44	0.12
E. THDC								
Tehri HPS (4*250)	1000	1060	1063	0	8.10	337	8.00	0.10
Koteshwar HPS (4*100)	400	104	201	90	2.53	106	2.50	0.03
Sub Total (E)	1400	1164	1264	90	10.63	443	10.50	0.13
F. BBMB								
Bhakra HPS (3*108+2*126+6*157)	1514	520	1095	341	12.63	526	12.48	0.15
Dehar HPS (6*165)	990	133	330	0	3.41	142	3.19	0.22
Pong HPS (6*66)	396	192	318	66	4.62	193	4.60	0.02
Sub Total (F)	2900	844	1743	407	20.66	861	20.27	0.39
G. IPP(s)/JV(s)								
ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	21	0	0.64	27	0.63	0.02
KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	860	0	4.91	205	4.92	-0.01
Malana Stg-II HPS (2*50)	100	0	0	0	0.00	0	0.05	-0.05
Shree Cement TPS (2*150)	300	0	147	145	3.36	140	3.34	0.02
Budhil HPS(IPP)	70	0	0	0	0.14	6	0.14	-0.01
Sub Total (G)	1662	0	1028	145	9.05	377	9.07	-0.03
H. Total Regional Entities (A-G)	24419	16658	18115	10010	297.73	12405	289.47	8.26

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	160	160	3.98	166
	Guru Nanak Dev TPS(Bhatinda) (4*110)	440	90	90	2.09	87
	Guru Hargobind Singh TPS(L.mbt) (2*210+2*250)	920	370	361	9.27	386
	Goindwal(GVK)		0	0	0.00	0
	Rajpura (2*700)	1400	693	708	16.04	668
	Talwandi Saboo (1*660)	660	538	370	10.64	443
	Thermal (Total)	4680	1851	1689	42.03	1751
	Total Hydro	1148	248	178	6.78	282
Total Punjab	5828	2099	1867	48.80	2033	
Haryana	Panipat TPS (4*110+2*210+2*250)	1367	0	0	0.00	0
	DCRTPP (Yamuna nagar) (2*300)	600	275	238	6.09	254
	Faridabad GPS (NTPC)	432	0	0	0.00	0
	RGTPP (khedar) (IPP) (2*600)	1200	1144	718	21.46	894
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP) (2*660)	1320	1233	742	23.34	973
	Thermal (Total)	4944	2652	1698	50.88	2120
	Total Hydro	62	13	20	0.44	18
	Total Haryana	5006	2665	1718	51.32	2138
	Rajasthan	kota TPS (2*110+2*195+3*210)	1240	809	781	20.03
suratgarh TPS (6*250)		1500	966	949	24.51	1021
Chabra TPS (3*250)		750	550	444	12.46	519
Dholpur GPS (3*110)		330	105	128	2.73	114
Ramgarh GPS (1*3 + 1*35.5 +2*37.5 +1*110 +1*50)		271	188	160	4.72	196
RAPS A (NPC) (1*100+1*200)		300	192	177	4.47	186
Barsingar (NLC) (2*125)		250	93	93	2.15	90
Giral LTPS (2*125)		250	67	42	1.39	58
Rajwast LTPS (IPP) (8*135)		1080	731	713	15.64	652
VS LIGNITE LTPS (IPP) (1*135)		135	0	0	0.00	0
Kalisindh Thermal(1*600)		600	478	440	10.33	430
Kawai(Adani) (2*660)		1320	1096	940	26.40	1100
Thermal (Total)		8026	5275	4867	125	5201
Total Hydro		550	254	172	5.48	228
Wind power		2798	36	41	1.35	56
Biomass		99	33	33	0.79	33
Solar		730	0	0	0.13	6
Renewable/Others (Total)		3627	69	74	2.27	95
Total Rajasthan	12203	5598	5113	132.56	5523	
UP	Anpara TPS (3*210+2*500)	1630	444	484	10.90	454
	Obra TPS (2*50+2*94+5*200)	1194	430	338	8.70	363
	Paricha TPS (2*110+2*220+2*250)	1140	817	721	18.40	767
	Panki TPS (2*105)	210	72	72	1.70	71
	Harduaganj TPS (1*60+1*105+2*250)	665	149	18	3.90	163
	Tanda TPS (NTPC) (4*110)	440	167	275	6.40	267
	Roza TPS (IPP) (4*300)	1200	1049	1089	25.10	1046
	Anpara-C (IPP) (2*600)	1200	981	990	23.40	975
	Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)	450	320	280	7.30	304
	Thermal (Total)	8129	4429	4267	105.80	4408
	Vishnuparyag HPS (IPP)	400	108	108	2.50	104
	Other Hydro	527	32	32	1.20	50
	Cogeneration	981	200	200	4.80	200
	Total UP	10037	4769	4607	114.30	4658
	Uttarakhand	Total Hydro	1398	494	244	8.13
Total Uttarakhand		1398	494	244	8.13	339
Delhi	Raighat TPS (2*67.5)	135	0	0	0.02	1
	Delhi Gas Turbine (6x30 + 3x34)	282	78	80	1.93	80
	Pragati Gas Turbine (2x104+ 1x122)	330	267	262	3.60	150
	Rithala GPS (3*36)	95	0	0	0.00	0
	Bawana GPS (6*250)	1370	304	323	7.24	302
	Badarpur TPS (NTPC) (3*95+2*210)	705	336	307	7.89	329
	Thermal (Total)	2917	985	972	20.67	861
Total Delhi	2917	985	972	20.67	861	
HP	Baspa HPS (IPP) (2*150)	300	30	0	1.26	53
	Malana HPS (IPP) (2*43)	86	21	0	0.21	9
	Other Hydro	728	192	152	4.25	177
	Total HP	1114	243	152	5.72	238
J & K	Baqilhar HPS (IPP) (3*150)	450	300	150	4.99	208
	Other Hydro/IPP	436	96	70	1.91	80
	Gas/Diesel/Others	209	0	0	0.00	0
	Total J & K	1094	396	220	6.90	288
Total State Control Area Generation		39597	17249	14893	388.41	16079
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			3487	4275	106.55	4440
Total Regional Availability(Gross)		64017	38851	29178	792.69	32925

IV. Total Hydro Generation:

Regional Entities Hydro	11432	8182	1205	71.06	2961
State Control Area Hydro	5684	1680	1018	37.14	1443
Total Regional Hydro	17116	9862	2223	108.20	4404

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	-400	-300	0	500	0.00	9.10	-9.10		
Gwalior-Agra (D/C)	1387	1474	1882	0	36.14	0.00	36.14		
Zerda-Kankroli	-213	-177	0	319	0.00	4.06	-4.06		
Zerda-Bhinmal	-125	-61	137	290	0.00	1.43	-1.43		
Malanpur-Auraiya	-99	-145	0	157	0.00	2.83	-2.83		
Badod-Kota/Morark	-149	-195	0	247	0.00	4.49	-4.49		
Mundra-Mohindergarh(HVDC)	2202	1998	2205	0	51.20	0.00	51.20		
Vindhychal - Rihand	502	380	504	0	11.09	0.00	11.09		
Sub Total WR	3105	2974			98.43	21.91	76.52		
Pusauli Bypass	400	400	400	0	9.72	0.00	9.72		
MZP- GKP (D/C)	104	214	438	136	3.72	0.00	3.72		
Patna-Balia(D/C)	318	437	742	0	11.66	0.00	11.66		
B'Sharif-Balia (D/C)	-134	95	210	143	1.26	0.00	1.26		
Pusauli-Balia	-137	-92	0	147	0.00	2.34	-2.34		
Gaya-Fatehpur (765 Kv)	-34	202	361	34	4.73	0.00	4.73		
Pusauli-Sahupuri	101	79	130	0	2.11	0.00	2.11		
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00		
Son Ngr-Rihand	-33	-40	0	40	0.00	0.86	-0.86		
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00		
Sasaram - Fatehpur(765 KV)	-203	6	151	203	0.03	0.00	0.03		
Sub Total ER	382	1301			33.23	3.20	30.03		
Total IR Exch	3487	4275			131.66	25.10	106.55		

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
18.43	0.87	19.30	5.39	-13.15	5.82	10.00	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
35.47	69.20	104.68	30.03	76.52	106.55	-5.44	7.32	1.88

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	0.54	3.27	17.34	53.94	59.14	14.27	8.46	1.28	0.00

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				
50.27	21.58	49.64	6.21	49.99	0.09	0.09	50.28	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	409	02:16	404	06:15	0.0	0.0	0.0	0.0
Gorakhpur	400	415	20:59	398	17:54	0.0	0.0	0.0	0.0
Bareilly	400	0	00:00	9999	00:00	0.0	0.0	0.0	0.0
Kanpur	400	421	20:45	404	06:55	0.0	0.0	0.6	0.0
Dadri	400	422	20:57	401	12:15	0.0	0.0	0.7	0.0
Ballabgarh	400	429	20:44	408	12:20	0.0	0.0	35.0	0.0
Bawana	400	426	21:01	407	12:15	0.0	0.0	11.7	0.0
Bassi	400	428	20:57	394	07:08	0.0	0.0	11.4	0.0
Hissar	400	418	20:44	398	12:17	0.0	0.0	0.0	0.0
Moga	400	424	20:45	406	06:56	0.0	0.0	15.1	0.0
Abdullapur	400	424	04:01	396	18:09	0.0	0.0	11.1	0.0
Nalagarh	400	428	21:59	406	11:40	0.0	0.0	29.2	0.0
Kishenpur	400	429	02:40	401	18:47	0.0	0.0	40.6	0.0
Wagoora	400	412	02:41	375	18:51	3.9	17.6	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	778	20:57	744	06:41	0.0	0.0	0.0	0.0
Balia	765	0	00:00	9999	00:00	0.0	0.0	0.0	0.0
Moga	765	806	20:55	768	06:58	0.0	0.0	3.5	0.0
Agra	765	794	20:44	756	06:42	0.0	0.0	0.0	0.0
Bhiwani	765	815	20:57	770	06:55	0.0	0.0	9.2	0.0
Unnao	765	761	04:01	740	10:43	0.0	0.6	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	504.63	1298.95	509.19	1515.08	196.52	388.82
Pong	426.72	384.05	411.44	544.90	418.25	807.91	58.08	295.77
Tehri	829.79	740.04	820.75	1023.38	822.20	1044.51	66.08	178.00
Koteshwar	612.50	598.50	609.30	4.21	610.63	4.69	178.00	168.00
Chamera-I	760.00	748.75	759.52	0.00	0.00	0.00	52.86	46.70
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	509.93	1.84	515.94	2.63	41.58	81.01

* 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	-382	130	0	-459	234	0	-9.89	4.98	-4.91
Delhi	-777	-66	-18	-597	67	-18	-14.26	-0.87	-15.13
Haryana	-774	179	0	-758	166	0	-19.65	3.58	-16.07
HP	422	-25	0	397	-374	0	9.47	-3.17	6.31
J&K	282	0	0	333	0	0	6.64	0.18	6.82
CHD	-31	0	0	0	0	0	-0.24	0.04	-0.20
Rajasthan	529	453	2	529	-156	2	12.70	8.71	21.41
UP	75	0	0	138	0	0	2.62	0.00	2.62
Uttarakhand	244	184	0	244	205	0	5.85	4.90	10.75
Total	-414	855	-16	-173	143	-16	-6.75	18.37	11.61

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	-357	-484	355	6	0	0
Delhi	-487	-786	129	-117	-18	-18
Haryana	-758	-978	181	-52	0	0
HP	422	378	0	-682	0	0
J&K	350	236	98	-10	0	0
CHD	0	-31	20	-20	0	0
Rajasthan	529	529	810	-530	2	2
UP	153	75	0	0	0	0
Uttarakhand	244	244	326	132	0	0

XI. System Constraints:**XII. Grid Disturbance / Any Other Significant Event:****XIII. Weather Conditions For 19.11.2014 :**
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 :**