पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)

उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 14.11.2014
Date of Reporting : 15.11.2014

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
37525	1456	38981	50.17	29224	2020	31244	50.11	781.0	52.37

* 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:

UI [OD:(+ve), UD: (-ve)]

State	State's Control Area Generation (Net MU)				Drawal Schedule	Actual Drawal	UI	Consumption	Shortages *
	Thermal	Hydro	Renewable/others $	Total	(Net MU)	(Net MU)	(Net MU)	(Net MU)	(MU)
Punjab	35.55	7.41		42.96	48.28	50.16	1.88	93.12	0.00
Haryana	47.68	0.48		48.16	54.27	54.12	-0.15	102.27	0.00
Rajasthan	122.03	5.17	4.17	131.36	70.11	73.59	3.47	204.95	0.00
Delhi	23.25			23.25	36.63	36.38	-0.25	59.63	0.00
UP	121.50	3.80	2.40	127.70	90.67	91.77	1.11	219.47	50.31
Uttarakhand		8.27		8.27	21.27	25.57	4.30	33.85	2.07
HP		5.94		5.94	17.20	18.43	1.23	24.37	0.00
J & K		7.36	0.00	7.36	28.24	32.62	4.37	39.98	0.00
Chandigarh				0.00	3.31	3.36	0.04	3.36	0.00
Total	**350.01**	**38.43**	**6.57**	**395.01**	**369.99**	**385.99**	**16.00**	**780.99**	**52.37**

* Shortage furnished by the respective constituent.$ Others include UP Co-generation and JK Diesel

II. B. State's Demand Met in MWs:

UI/OA/PX [OD/Import: (+ve), UD/Export: (-ve)

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	4577	0	116	-168	3107	0	109	-280	4911
Haryana	5907	0	-76	-625	3536	0	48	-635	5907
Rajasthan	8817	0	-146	217	8117	0	72	904	9655
Delhi	3122	2	-64	-441	1525	0	-93	-863	3151
UP	10037	1370	-159	148	9373	2020	422	91	10123
Uttarakhand	1739	75	112	366	1186	0	156	352	1779
HP	1221	9	6	53	792	0	27	324	1401
J&K	1920	0	50	324	1501	0	89	282	1920
Chandigarh	186	0	-6	0	87	0	-5	-31	186
Total	**37525**	**1456**	**-167**	**-125**	**29224**	**2020**	**826**	**145**	**37525**

* STOA figures are at sellers boundary & PX figures are at regional boundary. # figures may not be at simultaneous hour.

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III. Regional Entities :

UI [OG:(+ve), UG: (-ve)]

	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	1730	1814	1855	44.35	1848	41.52	2.83
	Rihand I STPS (2*500)	1000	870	909	931	22.12	921	20.70	1.41
	Rihand II STPS (2*500)	1000	970	1003	974	24.16	1007	22.99	1.17
	Rihand III STPS (2*500)	1000	470	482	406	11.64	485	10.98	0.66
	Dadri I STPS (4*210)	840	790	661	582	16.38	683	15.64	0.75
	Dadri II STPS (2*490)	980	980	913	766	21.93	914	21.83	0.10
	Unchahar I TPS (2*210)	420	400	364	372	9.85	411	9.23	0.63
	Unchahar II TPS (2*210)	420	200	154	163	4.68	195	4.30	0.39
	Unchahar III TPS (1*220)	210	200	163	172	4.72	197	4.36	0.35
	ISTPP (Jhajjhar) (3*500)	1500	1500	979	922	21.53	897	22.95	-1.42
	Dadri GPS (4*130.19+2*154.51)	830	819	165	358	5.48	228	5.53	-0.05
	Anta GPS (3*88.71+1*153.2)	419	403	227	215	5.67	236	5.74	-0.08
	Auraiya GPS (4*111.19+2*109.30)	663	432	157	132	3.69	154	3.68	0.01
	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**	**9768**	**7991**	**7848**	**196**	**8177**	**190**	**7**
B. NPC	NAPS (2*220)	440	290	332	332	7.07	295	6.96	0.11
	RAPS- B (2*220)	440	403	447	449	9.69	404	9.67	0.02
	RAPS- C (2*220)	440	400	448	450	9.67	403	9.60	0.07
	Sub Total (B)	**1320**	**1093**	**1227**	**1231**	**26.43**	**1101**	**26.23**	**0.19**
C. NHPC	Chamera I HPS (3*180)	540	534	536	0	2.52	105	2.50	0.02
	Chamera II HPS (3*100)	300	300	296	0	1.66	69	1.60	0.06
	Chamera III HPS (3*77)	231	231	220	0	0.91	38	0.90	0.01
	Bairasuil HPS(3*60)	180	178	177	0	0.68	28	0.64	0.04
	Salal-HPS (6*115)	690	157	230	205	3.92	163	3.77	0.15
	Tanakpur-HPS (3*40)	94	39	62	37	0.96	40	0.93	0.03
	Uri-I HPS (4*120)	480	235	253	243	5.81	242	5.64	0.17
	Uri-II HPS (4*60)	240	142	178	139	3.47	145	3.40	0.08
	Dhauliganga-HPS (4*70)	280	204	210	0	1.53	64	1.40	0.13
	Dulhasti-HPS (3*130)	390	387	396	229	3.92	163	3.70	0.22
	Sewa-II HPS (3*40)	120	119	121	0	0.38	16	0.38	0.00
	Parbati 3 (4*130)	520	260	233	0	0.51	21	0.55	-0.04
	Sub Total (C)	**4065**	**2786**	**2911**	**853**	**26**	**1094**	**25**	**1**
D.SJVNL	NJPC (6*250)	1500	1605	1605	0	9.03	376	9.20	-0.17
	Rampur HEP (4*68.67)	275	350	376	0	2.47	103	2.44	0.02
	Sub Total (D)	1775	1955	1981	0	11.50	479	11.64	-0.15
E. THDC	Tehri HPS (4*250)	1000	1060	1061	0	6.38	266	6.30	0.08
	Koteshwar HPS (4*100)	400	91	90	91	2.22	92	2.20	0.02
	Sub Total (E)	**1400**	**1151**	**1151**	**91**	**8.59**	**358**	**8.50**	**0.09**
F. BBMB	Bhakra HPS (3*108+2*126+6*157)	1514	546	1022	370	13.23	551	13.10	0.13
	Dehar HPS (6*165)	990	146	495	0	3.55	148	3.51	0.05
	Pong HPS (6*66)	396	177	318	66	4.23	176	4.24	-0.01
	Sub Total (F)	**2900**	**869**	**1835**	**436**	**21.01**	**875**	**20.85**	**0.16**
G. IPP(s)/JV(s)	ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	167	0	0.63	26	0.61	0.02
	KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	860	0	4.93	206	5.04	-0.11
	Malana Stg-II HPS (2*50)	100	0	0	0	0.00	0	0.00	0.00
	Shree Cement TPS (2*150)	300	0	136	102	2.99	124	2.97	0.02
	Budhil HPS(IPP)	70	0	69	0	0.14	6	0.14	0.00
	Sub Total (G)	1662	0	1233	102	8.69	362	8.76	-0.07
H. Total Regional Entities (A-G)		**24419**	**17622**	**18329**	**10562**	**298.72**	**12447**	**290.93**	**7.80**

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	3.93	164
	Guru Nanak Dev TPS(Bhatinda) (4*110)	440	90	90	2.09	87
	Guru Hargobind Singh TPS(L.mbt) (2*210+2*250)	920	376	369	9.26	386
	Goindwal(GVK)		0	0	0.00	0
	Rajpura (2*700)	1400	683	696	19.73	822
	Talwandi Saboo (1*660)	660	118	0	0.54	23
	Thermal (Total)	**4680**	**1427**	**1315**	**35.55**	**1481**
	Total Hydro	1148	394	256	7.41	309
	Total Punjab	**5828**	**1821**	**1571**	**42.96**	**1790**
Haryana	Panipat TPS (4*110+2*210+2*250)	1367	211	206	4.95	206
	DCRTPP (Yamuna nagar) (2*300)	600	272	244	6.09	254
	Faridabad GPS (NTPC)	432	195	164	4.33	180
	RGTPP (khedar) (IPP) (2*600)	1200	1148	719	20.83	868
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP) (2*660)	1320	596	379	11.48	478
	Thermal (Total)	**4944**	**2422**	**1712**	**47.68**	**1987**
	Total Hydro	62	15	18	0.48	20
	Total Haryana	**5006**	**2437**	**1730**	**48.16**	**2007**
Rajasthan	kota TPS (2*110+2*195+3*210)	1240	789	772	18.51	771
	suratgarh TPS (6*250)	1500	1069	983	24.42	1018
	Chabra TPS (3*250)	750	431	396	10.13	422
	Dholpur GPS (3*110)	330	116	127	3.09	129
	Ramgarh GPS (1*3 + 1*35.5 +2*37.5 +1*110 +1*50)	271	191	159	4.97	207
	RAPS A (NPC) (1*100+1*200)	300	189	171	4.44	185
	Barsingsar (NLC) (2*125)	250	186	190	4.44	185
	Giral LTPS (2*125)	250	0	0	0.00	0
	Rajwest LTPS (IPP) (8*135)	1080	730	726	17.25	719
	VS LIGNITE LTPS (IPP) (1*135)	135	0	0	0.00	0
	Kalisindh Thermal(1*600)	600	500	500	11.11	463
	Kawai(Adani) (2*660)	1320	1048	871	23.68	987
	Thermal (Total)	**8026**	**5249**	**4895**	**122**	**5085**
	Total Hydro	550	207	159	5.17	215
	Wind power	2798	87	228	3.13	130
	Biomass	99	38	38	0.91	38
	Solar	730	1	0	0.13	5
	Renewable/Others (Total)	3627	126	266	4.17	174
	Total Rajasthan	**12203**	**5582**	**5320**	**131.36**	**5474**
UP	Anpara TPS (3*210+2*500)	1630	914	926	22.10	921
	Obra TPS (2*50+2*94+5*200)	1194	451	445	10.50	438
	Paricha TPS (2*110+2*220+2*250)	1140	662	465	15.20	633
	Panki TPS (2*105)	210	131	126	2.80	117
	Harduaganj TPS (1*60+1*105+2*250)	665	266	473	8.50	354
	Tanda TPS (NTPC) (4*110)	440	280	280	6.90	288
	Roza TPS (IPP) (4*300)	1200	1017	1067	24.80	1033
	Anpara-C (IPP) (2*600)	1200	986	986	21.90	913
	Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)	450	361	301	8.80	367
	Thermal (Total)	**8129**	**5068**	**5069**	**121.50**	**5063**
	Vishnuparyag HPS (IPP)	400	114	114	2.70	113
	Other Hydro	527	62	32	1.10	46
	Cogeneration	981	100	100	2.40	100
	Total UP	**10037**	**5344**	**5315**	**127.70**	**5208**
Uttarakhand	Total Hydro	1398	536	231	8.27	345
	Total Uttarakhand	**1398**	**536**	**231**	**8.27**	**345**
Delhi	Rajghat TPS (2*67.5)	135	0	0	0.00	0
	Delhi Gas Turbine (6x30 + 3x34)	282	103	77	1.93	80
	Pragati Gas Turbine (2x104+ 1x122)	330	263	143	4.57	190
	Rithala GPS (3*36)	95	0	0	0.00	0
	Bawana GPS (6*250)	1370	307	243	7.04	293
	Badarpur TPS (NTPC) (3*95+2*210)	705	362	311	9.71	405
	Thermal (Total)	2917	1035	774	23.25	969
	Total Delhi	**2917**	**1035**	**774**	**23.25**	**969**
HP	Baspa HPS (IPP) (2*150)	300	0	30	1.31	55
	Malana HPS (IPP) (2*43)	86	72	0	0.31	13
	Other Hydro	728	182	173	4.32	180
	Total HP	**1114**	**254**	**203**	**5.94**	**247**
J & K	Baglihar HPS (IPP) (3*150)	450	296	148	4.84	202
	Other Hydro/IPP	436	105	105	2.52	105
	Gas/Diesel/Others	209	0	0	0.00	0
	Total J & K	**1094**	**401**	**253**	**7.36**	307
Total State Control Area Generation		**39597**	**17410**	**15397**	**395.01**	**16346**
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			**3925**	**4780**	**118.30**	**4929**
Total Regional Availability(Gross)		**64017**	**39664**	**30739**	**812.03**	**33722**

IV. Total Hydro Generation:

Regional Entities Hydro	**11432**	**8905**	**1381**	**72.93**	**3039**
State Control Area Hydro	**5684**	**1869**	**1152**	**38.43**	**1489**
Total Regional Hydro	**17116**	**10774**	**2533**	**111.36**	**4527**

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
	MW	MW	Import	Export	Import	Export	MU
Vindhychal B/B	-450	-400	0	450	0.00	9.93	-9.93
Gwalior-Agra (D/C)	1561	1291	1853	0	34.14	0.00	34.14
Zerda-Kankroli	-199	-155	13	199	0.00	2.51	-2.51
Zerda-Bhinmal	-116	-47	134	127	0.02	0.00	0.02
Malanpur-Auraiya	30	47	0	78	0.00	0.96	-0.96
Badod-Kota/Morak	-153	-142	112	0	0.00	4.22	-4.22
Mundra-Mohindergarh(HVDC)	2201	2198	2206	0	53.21	0.00	53.21
Vindhyachal - Rihand	482	497	515	0	11.39	0.00	11.39
Sub Total WR	**3356**	**3289**			**98.77**	**17.62**	**81.15**
Pusauli Bypass	50	50	50	0	1.27	0.00	1.27
MZP- GKP (D/C)	70	260	388	0	5.05	0.00	5.05
Patna-Balia(D/C)	549	751	990	0	18.22	0.00	18.22
B'Sharif-Balia (D/C)	12	52	357	-28	3.20	0.00	3.20
Pusauli-Balia	-62	-81	0	-97	0.00	0.00	0.00
Gaya-Fatehpur (765 Kv)	-31	253	344	31	5.45	0.00	5.45
Pusauli-Sahupuri	141	120	147	0	2.54	0.00	2.54
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-32	-43	0	44	0.00	0.86	-0.86
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	-128	129	213	129	2.26	0.00	2.26
Sub Total ER	**569**	**1491**			**38.01**	**0.86**	**37.15**
Total IR Exch	**3925**	**4780**			**136.77**	**18.48**	**118.30**

V(B). Inter Regional Schedule & Actual Exchanges [Import (+ve)/Export (-ve)] [Corridor wise]

ISGS/LT Schedule (MU)			Bilateral Schedule (MU)		Power Exchange Shdl (MU)		Wheeling (MU)	
ER	Bhutan	Total	Through ER	Through WR	Through ER	Through WR	Through ER	Through WR
17.88	0.93	18.81	4.67	-11.94	1.52	9.70	4.54	-4.54

Total IR Schedule (MU)			Total IR Actual (MU)			Net IR UI (MU)		
Through ER	Through WR Incids Mndra	Total	Through ER	Through WR	Total	Through ER	Through WR	Total
29.53	68.74	98.27	37.15	81.15	118.30	7.61	12.41	20.02

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	0.24	4.53	14.02	43.61	49.98	18.66	16.42	1.92	0.00

<---------- Frequency (Hz) ---------->				Average Frequency	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX	MIN
Freq	Time	Freq	Time	Hz			(Hz)	(Hz)
50.31	18.02	49.66	6.23	50.01	0.11	0.10	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	411	0:31	403	17:52	0.0	0.0	0.0	0.0
Gorakhpur	400	233	20:36	222	17:43	100.0	100.0	0.0	0.0
Bareilly	400	420	20:54	393	11:11	0.0	0.0	0.0	0.0
Kanpur	400	421	21:12	404	6:34	0.0	0.0	0.5	0.0
Dadri	400	421	4:02	402	9:52	0.0	0.0	0.1	0.0
Ballabhgarh	400	428	3:00	410	9:32	0.0	0.0	38.5	0.0
Bawana	400	0	0:00	9999	0:00	0.0	0.0	0.0	0.0
Bassi	400	427	20:52	393	6:27	0.0	0.0	10.5	0.0
Hissar	400	418	4:03	399	9:30	0.0	0.0	0.0	0.0
Moga	400	423	2:59	404	9:48	0.0	0.0	12.7	0.0
Abdullapur	400	427	3:01	396	18:13	0.0	0.0	30.9	0.0
Nalagarh	400	432	3:00	411	9:48	0.0	0.0	42.3	7.6
Kishenpur	400	426	2:57	398	18:14	0.0	0.0	20.2	0.0
Wagoora	400	411	4:03	385	6:53	0.0	8.0	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	779	21:18	742	6:38	0.0	0.0	0.0	0.0
Balia	765	774	20:10	746	17:52	0.0	0.0	0.0	0.0
Moga	765	802	4:02	766	9:52	0.0	0.0	2.5	0.0
Agra	765	794	21:12	753	6:37	0.0	0.0	0.0	0.0
Bhiwani	765	0	0:00	9999	0:00	0.0	0.0	0.0	0.0
Unnao	765	760	21:55	736	6:36	0.0	53.5	0.0	0.0

IX. Reservior Parameters:

Name of Reservior	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	505.20	1312.37	509.75	1530.03	180.21	392.78
Pong	426.72	384.05	411.97	566.84	418.70	834.82	63.26	267.45
Tehri	829.79	740.04	821.85	1040.00	822.85	1060.00	67.47	140.00
Koteshwar	612.50	598.50	609.28	4.21	610.60	4.95	140.00	147.00
Chamera-I	760.00	748.75	0.00	0.00	759.77	0.00	61.00	68.04
Rihand	268.22	252.98	853.30	309.60	859.00	407.50	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	510.17	2.36	516.48	5.12	55.67	101.00

*** 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	-290	11	0	-265	97	0	-6.56	0.93	-5.63
Delhi	-766	-97	0	-586	146	0	-14.16	0.55	-13.61
Haryana	-802	167	0	-786	161	0	-20.31	2.37	-17.94
HP	324	0	0	300	-246	0	7.38	-1.43	5.95
J&K	282	0	0	334	-10	0	6.65	-0.13	6.52
CHD	-31	0	0	0	0	0	-0.24	0.14	-0.10
Rajasthan	490	413	2	502	-287	2	11.81	8.36	20.17
UP	91	0	0	148	0	0	2.76	0.00	2.76
Uttarakhand	244	108	0	244	122	0	5.86	3.64	9.50
Total	**-458**	**601**	**2**	**-109**	**-17**	**2**	**-6.80**	**14.43**	**7.63**

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	-265	-290	217	0	0	0
Delhi	-485	-766	205	-153	0	0
Haryana	-786	-1005	172	-238	0	0
HP	324	300	122	-581	0	0
J&K	351	236	0	-10	0	0
CHD	0	-31	29	0	0	0
Rajasthan	502	490	831	-330	2	2
UP	158	85	0	0	0	0
Uttarakhand	244	244	317	57	0	0

XI. System Constraints:

XII. Grid Disturbance / Any Other Significant Event:

XIII. Weather Conditions For 14.11.2014 :

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 :

Report for : 14.11.2014 **पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER**