पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)

उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 10.12.2014
Date of Reporting : 11.12.2014

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
38843	2472	41315	50.07	29696	837	30533	50.14	814.9	51.42

* 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:

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	56.23	7.03		63.26	40.70	41.50	0.80	104.76	0.00
Haryana	52.21	0.32		52.53	61.50	62.90	1.40	115.43	0.25
Rajasthan	132.72	5.31	10.54	148.57	59.76	58.86	-0.90	207.43	0.00
Delhi	18.11			18.11	40.00	40.88	0.88	58.99	0.00
UP	138.50	3.60		142.10	83.24	81.55	-1.69	223.65	41.90
Uttarakhand		6.86		6.86	25.72	26.35	0.63	33.21	0.43
HP		4.92		4.92	20.00	20.80	0.80	25.72	0.04
J & K		5.57	0.00	5.57	34.10	36.60	2.50	42.17	8.80
Chandigarh				0.00	3.27	3.49	0.22	3.49	0.00
Total	**397.77**	**33.61**	**10.54**	**441.92**	**368.29**	**372.93**	**4.64**	**814.85**	**51.42**

* 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	5171	0	80	-240	3758	0	151	-383	5510
Haryana	5644	276	-106	-786	4194	0	114	-786	5644
Rajasthan	9168	0	-131	169	7713	0	-48	765	9613
Delhi	3044	10	-30	-164	1618	2	134	-916	3139
UP	10633	1600	-12	78	8785	550	-166	73	16313
Uttarakhand	1624	75	-53	740	1130	0	59	441	1710
HP	1340	0	-111	337	783	0	72	312	1378
J&K	2030	511	-41	535	1630	285	76	614	2050
Chandigarh	191	0	-1	0	85	0	10	-30	191
Total	**38843**	**2472**	**-405**	**669**	**29696**	**837**	**402**	**89**	**42593**

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

Diversity is 1.07

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	1442	1561	1519	34.72	1447	34.42	0.30
	Rihand I STPS (2*500)	1000	881	957	745	21.90	913	20.35	1.55
	Rihand II STPS (2*500)	1000	970	1003	819	23.10	963	21.68	1.42
	Rihand III STPS (2*500)	1000	475	511	424	11.30	471	10.40	0.90
	Dadri I STPS (4*210)	840	615	564	407	11.70	488	12.06	-0.36
	Dadri II STPS (2*490)	980	980	899	703	19.60	817	20.28	-0.68
	Unchahar I TPS (2*210)	420	404	416	324	9.20	383	8.80	0.40
	Unchahar II TPS (2*210)	420	401	374	290	8.60	358	7.95	0.65
	Unchahar III TPS (1*220)	210	200	179	144	4.20	175	3.96	0.24
	ISTPP (Jhajjhar) (3*500)	1500	1327	1128	885	23.15	965	24.66	-1.51
	Dadri GPS (4*130.19+2*154.51)	830	813	567	381	9.10	379	9.40	-0.30
	Anta GPS (3*88.71+1*153.2)	419	412	254	231	5.90	246	5.96	-0.06
	Auraiya GPS (4*111.19+2*109.30)	663	493	305	308	6.90	288	6.86	0.04
	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**	**9417**	**8718**	**7180**	**189**	**7892**	**187**	**3**
B. NPC	NAPS (2*220)	440	292	330	331	7.02	292	7.01	0.01
	RAPS- B (2*220)	440	412	456	455	9.86	411	9.89	-0.02
	RAPS- C (2*220)	440	220	234	238	5.02	209	5.28	-0.26
	Sub Total (B)	**1320**	**924**	**1020**	**1024**	**21.90**	**912**	**22.18**	**-0.28**
C. NHPC	Chamera I HPS (3*180)	540	356	284	0	2.02	84	1.90	0.12
	Chamera II HPS (3*100)	300	200	102	0	1.13	47	1.10	0.03
	Chamera III HPS (3*77)	231	154	160	0	0.70	29	0.65	0.05
	Bairasuil HPS(3*60)	180	179	180	0	0.55	23	0.50	0.05
	Salal-HPS (6*115)	690	129	229	124	3.26	136	3.05	0.21
	Tanakpur-HPS (3*40)	94	27	45	26	0.68	28	0.65	0.03
	Uri-I HPS (4*120)	480	140	231	84	3.49	145	3.35	0.14
	Uri-II HPS (4*60)	240	0	0	0	0.00	0	0.00	0.00
	Dhauliganga-HPS (4*70)	280	127	138	0	1.02	42	1.00	0.02
	Dulhasti-HPS (3*130)	390	387	393	0	3.05	127	2.90	0.15
	Sewa-II HPS (3*40)	120	79	82	0	0.25	10	0.24	0.01
	Parbati 3 (4*130)	520	0	0	0	0.00	0	0.00	0.00
	Sub Total (C)	**4065**	**1777**	**1842**	**234**	**16**	**673**	**15**	**1**
D.SJVNL	NJPC (6*250)	1500	1605	1593	0	7.88	328	7.78	0.10
	Rampur HEP (4*68.67)	275	350	374	0	2.19	91	2.08	0.11
	Sub Total (D)	1775	1955	1967	0	10.07	420	9.87	0.20
E. THDC	Tehri HPS (4*250)	1000	1060	1013	0	6.28	262	6.20	0.08
	Koteshwar HPS (4*100)	400	91	100	90	2.23	93	2.20	0.03
	Sub Total (E)	**1400**	**1151**	**1113**	**90**	**8.51**	**354**	**8.40**	**0.11**
F. BBMB	Bhakra HPS (3*108+2*126+6*157)	1514	678	1034	513	16.74	697	16.27	0.47
	Dehar HPS (6*165)	990	123	165	0	3.12	130	2.94	0.18
	Pong HPS (6*66)	396	230	324	132	5.52	230	5.52	0.00
	Sub Total (F)	**2900**	**1030**	**1523**	**645**	**25.37**	**1057**	**24.73**	**0.64**
G. IPP(s)/JV(s)	ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	50	0	0.53	22	0.51	0.01
	KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	1029	0	4.14	173	4.11	0.03
	Malana Stg-II HPS (2*50)	100	0	0	0	0.14	6	0.16	-0.02
	Shree Cement TPS (2*150)	300	0	134	93	2.88	120	2.90	-0.02
	Budhil HPS(IPP)	70	0	0	0	0.00	0	0.15	-0.15
	Sub Total (G)	1662	0	1213	93	7.69	320	7.83	-0.15
H. Total Regional Entities (A-G)		**24419**	**16255**	**17396**	**9266**	**279.09**	**11629**	**275.22**	**3.87**

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	850	670	18.02	751
	Guru Nanak Dev TPS(Bhatinda) (4*110)	440	120	120	2.55	106
	Guru Hargobind Singh TPS(L.mbt) (2*210+2*250)	920	340	335	8.64	360
	Goindwal(GVK)		0	0	0.00	0
	Rajpura (2*700)	1400	748	685	19.29	804
	Talwandi Saboo (1*660)	660	347	368	7.74	322
	Thermal (Total)	**4680**	**2405**	**2178**	**56.23**	**2343**
	Total Hydro	1148	264	264	7.03	293
	Total Punjab	**5828**	**2669**	**2442**	**63.26**	**2636**
Haryana	Panipat TPS (4*110+2*210+2*250)	1367	963	929	22.58	941
	DCRTPP (Yamuna nagar) (2*300)	600	281	243	6.38	266
	Faridabad GPS (NTPC)	432	0	0	0.00	0
	RGTPP (khedar) (IPP) (2*600)	1200	312	372	10.83	451
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP) (2*660)	1320	619	376	12.42	517
	Thermal (Total)	**4944**	**2175**	**1920**	**52.21**	**2176**
	Total Hydro	62	14	10	0.32	13
	Total Haryana	**5006**	**2189**	**1930**	**52.53**	**2189**
Rajasthan	kota TPS (2*110+2*195+3*210)	1240	956	931	23.36	973
	suratgarh TPS (6*250)	1500	1178	1162	26.41	1101
	Chabra TPS (3*250)	750	647	573	14.62	609
	Dholpur GPS (3*110)	330	116	116	2.91	121
	Ramgarh GPS (1*3 + 1*35.5 +2*37.5 +1*110 +1*50)	271	161	190	3.50	146
	RAPS A (NPC) (1*100+1*200)	300	151	171	4.10	171
	Barsingsar (NLC) (2*125)	250	118	162	4.32	180
	Giral LTPS (2*125)	250	74	72	1.44	60
	Rajwest LTPS (IPP) (8*135)	1080	736	384	14.89	621
	VS LIGNITE LTPS (IPP) (1*135)	135	0	0	0.00	0
	Kalisindh Thermal(1*600)	600	560	540	13.38	558
	Kawai(Adani) (2*660)	1320	1014	858	23.78	991
	Thermal (Total)	**8026**	**5711**	**5159**	**133**	**5530**
	Total Hydro	550	260	179	5.31	221
	Wind power	2798	362	328	9.37	391
	Biomass	99	40	40	0.95	40
	Solar	730	0	0	0.22	9
	Renewable/Others (Total)	3627	402	368	10.54	439
	Total Rajasthan	**12203**	**6373**	**5706**	**148.57**	**6190**
UP	Anpara TPS (3*210+2*500)	1630	949	928	22.30	929
	Obra TPS (2*50+2*94+5*200)	1194	346	242	7.70	321
	Paricha TPS (2*110+2*220+2*250)	1140	750	754	18.00	750
	Panki TPS (2*105)	210	144	158	3.50	146
	Harduaganj TPS (1*60+1*105+2*250)	665	459	455	11.00	458
	Tanda TPS (NTPC) (4*110)	440	275	270	6.70	279
	Roza TPS (IPP) (4*300)	1200	770	601	16.80	700
	Anpara-C (IPP) (2*600)	1200	1080	1008	25.30	1054
	Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)	450	401	279	8.00	333
	Thermal (Total)	**8129**	**5174**	**4695**	**119.30**	**4971**
	Vishnuparyag HPS (IPP)	400	88	91	2.10	88
	Other Hydro	527	189	24	1.50	63
	Cogeneration	981	800	800	19.20	800
	Total UP	**10037**	**6251**	**5610**	**142.10**	**5833**
Uttarakhand	Total Hydro	1398	424	233	6.86	286
	Total Uttarakhand	**1398**	**424**	**233**	**6.86**	**286**
Delhi	Rajghat TPS (2*67.5)	135	0	0	0.00	0
	Delhi Gas Turbine (6x30 + 3x34)	282	83	79	1.94	81
	Pragati Gas Turbine (2x104+ 1x122)	330	150	153	3.71	154
	Rithala GPS (3*36)	95	0	0	0.00	0
	Bawana GPS (6*250)	1370	325	272	7.30	304
	Badarpur TPS (NTPC) (3*95+2*210)	705	216	225	5.16	215
	Thermal (Total)	2917	774	729	18.11	755
	Total Delhi	**2917**	**774**	**729**	**18.11**	**755**
HP	Baspa HPS (IPP) (2*150)	300	0	0	1.29	54
	Malana HPS (IPP) (2*43)	86	34	0	0.21	9
	Other Hydro	728	204	108	3.42	143
	Total HP	**1114**	**238**	**108**	**4.92**	**205**
J & K	Baglihar HPS (IPP) (3*150)	450	298	118	4.09	171
	Other Hydro/IPP	436	89	42	1.48	62
	Gas/Diesel/Others	209	0	0	0.00	0
	Total J & K	**1094**	**387**	**160**	**5.57**	232
Total State Control Area Generation		**39597**	**19305**	**16918**	**441.92**	**18326**
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			**3866**	**4222**	**119.33**	**4972**
Total Regional Availability(Gross)		**64017**	**40567**	**30406**	**840.35**	**34927**

IV. Total Hydro Generation:

Regional Entities Hydro	**11432**	**7525**	**969**	**64.90**	**2704**
State Control Area Hydro	**5684**	**1776**	**978**	**33.61**	**1313**
Total Regional Hydro	**17116**	**9301**	**1947**	**98.51**	**4017**

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	50	-100	100	150	1.16	0.69	0.47
Gwalior-Agra (D/C)	1278	1540	2011	0	39.79	0.00	39.79
Zerda-Kankroli	-123	-141	42	258	0.00	1.61	-1.61
Zerda-Bhinmal	-59	-63	147	222	0.40	0.00	0.40
Malanpur-Auraiya	-92	-107	0	136	0.00	2.48	-2.48
Badod-Kota/Morak	-69	-192	32	206	0.00	2.81	-2.81
Mundra-Mohindergarh(HVDC)	2298	2101	2304	0	54.39	0.00	54.39
Vindhyachal - Rihand	0	0	0	0	0.00	0.00	0.00
Sub Total WR	**3283**	**3038**			**95.73**	**7.59**	**88.14**
Pusauli Bypass	-390	-265	0	390	0.00	5.99	-5.99
MZP- GKP (D/C)	130	394	430	0	6.63	0.00	6.63
Patna-Balia(D/C)	254	482	663	0	11.74	0.00	11.74
B'Sharif-Balia (D/C)	201	135	259	0	4.26	0.00	4.26
Pusauli-Balia	23	10	23	-37	0.02	0.00	0.02
Gaya-Fatehpur (765 Kv)	182	187	437	0	6.70	0.00	6.70
Pusauli-Sahupuri	94	110	127	0	2.47	0.00	2.47
K'nasa-Sahupuri	0	0	0	0	0.00	0.48	-0.48
Son Ngr-Rihand	-36	-36	0	-40	0.00	0.00	0.00
Garhwa-Rihand	0	0	0	0	0.00	-0.77	0.77
Sasaram - Fatehpur(765 KV)	125	167	338	0	5.08	0.00	5.08
Sub Total ER	**583**	**1184**			**36.89**	**5.70**	**31.19**
Total IR Exch	**3866**	**4222**			**132.62**	**13.29**	**119.33**

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
24.84	0.54	25.37	5.88	-9.23	3.21	13.85	6.01	-6.01

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
40.48	70.67	111.14	31.19	88.14	119.33	-9.29	17.48	8.19

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	1.15	7.56	25.72	57.32	49.86	14.56	8.48	1.38	NA

<---------- Frequency (Hz) ---------->				Average	Frequency	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum		Frequency	Variation		MAX	MIN
Freq	Time	Freq	Time	Hz	Index		(Hz)	(Hz)
50.32	23.55	49.67	16.49	49.97	0.13	0.11	50.31	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	415	02:02	407	10:32	0.0	0.0	0.0	0.0
Gorakhpur	400	411	02:02	391	16:49	0.0	0.0	0.0	0.0
Bareilly	400	427	04:22	401	14:41	0.0	0.0	17.4	0.0
Kanpur	400	424	04:22	402	10:33	0.0	0.0	13.9	0.0
Dadri	400	424	04:03	401	12:12	0.0	0.0	18.0	0.0
Ballabhgarh	400	432	04:20	405	12:12	0.0	0.0	32.1	2.0
Bawana	400	429	04:03	405	12:12	0.0	0.0	32.0	0.0
Bassi	400	426	20:44	392	09:34	0.0	0.0	9.6	0.0
Hissar	400	418	04:03	394	12:11	0.0	0.0	0.0	0.0
Moga	400	424	03:03	401	09:34	0.0	0.0	39.9	0.0
Abdullapur	400	424	01:59	396	12:12	0.0	0.0	21.8	0.0
Nalagarh	400	432	21:13	404	12:15	0.0	0.0	33.4	0.5
Kishenpur	400	424	02:03	394	18:17	0.0	0.0	16.8	0.0
Wagoora	400	410	13:01	378	07:05	3.6	38.5	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	781	03:00	740	10:39	0.0	0.6	0.0	0.0
Balia	765	775	03:03	732	16:43	0.0	8.0	0.0	0.0
Moga	765	803	04:03	761	14:38	0.0	0.0	3.1	0.0
Agra	765	795	03:02	750	10:35	0.0	0.0	0.0	0.0
Bhiwani	765	811	04:20	763	12:18	0.0	0.0	26.4	0.0
Unnao	765	770	04:20	730	16:43	0.0	39.6	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	501.17	1140.31	506.18	1367.40	133.40	492.71
Pong	426.72	384.05	408.77	454.47	415.37	693.24	56.27	365.77
Tehri	829.79	740.04	816.10	922.00	818.60	972.00	48.29	141.00
Koteshwar	612.50	598.50	609.68	4.69	610.05	4.55	141.00	148.00
Chamera-I	760.00	748.75	759.62	0.00	0.00	0.00	52.61	54.37
Rihand	268.22	252.98	853.30	309.60	857.60	383.40	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	508.70	0.50	513.73	2.30	54.14	28.31

*** 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	-391	8	0	-411	171	0	-10.65	0.60	-10.05
Delhi	-904	0	-12	-521	369	-12	-14.57	3.09	-11.48
Haryana	-936	150	0	-917	131	0	-23.03	2.82	-20.21
HP	431	-119	0	401	-64	0	10.95	-2.79	8.16
J&K	614	0	0	437	98	0	12.09	1.62	13.71
CHD	-30	0	0	0	0	0	-0.24	0.07	-0.17
Rajasthan	490	274	0	490	-321	0	15.78	4.40	20.18
UP	73	0	0	78	0	0	1.35	0.00	1.35
Uttarakhand	215	226	0	215	476	49	5.16	9.68	14.84
Total	**-438**	**539**	**-12**	**-226**	**858**	**37**	**-3.15**	**19.49**	**16.34**

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	-391	-594	175	0	0	0
Delhi	-426	-904	379	-30	-12	-30
Haryana	-622	-1105	151	85	0	0
HP	496	382	0	-393	0	0
J&K	614	437	130	-17	0	0
CHD	0	-30	25	0	0	0
Rajasthan	849	490	468	-771	0	0
UP	114	-10	0	0	0	0
Uttarakhand	215	215	508	201	49	0

XI. System Constraints:

XII. Grid Disturbance / Any Other Significant Event:

XIII. Weather Conditions For 10.12.2014 :

Fog in Eastern UP

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 : 10.12.2014 **पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER**