पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)

उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 30.11.2014
Date of Reporting : 01.12.2014

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
37457	1349	38806	50.13	30321	457	30778	50.09	801.6	29.61

* 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	59.82	6.83		66.65	46.04	47.39	1.35	114.04	0.00
Haryana	59.99	0.45		60.44	47.04	47.27	0.23	107.71	0.00
Rajasthan	129.95	5.58	4.01	139.54	68.95	70.87	1.93	210.41	0.00
Delhi	18.24			18.24	37.45	36.84	-0.61	55.08	0.00
UP	130.57	3.29		133.86	89.53	87.49	-2.04	221.35	20.29
Uttarakhand		7.92		7.92	22.66	21.74	-0.91	29.67	0.10
HP		5.00		5.00	17.26	16.54	-0.73	21.54	0.00
J & K		5.42	0.00	5.42	32.39	33.30	0.91	38.72	9.22
Chandigarh				0.00	3.02	3.05	0.03	3.05	0.00
Total	**398.57**	**34.50**	**4.01**	**437.08**	**364.34**	**364.50**	**0.16**	**801.58**	**29.61**

* 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	5122	0	26	-190	3961	0	34	-474	5855
Haryana	5475	0	-285	-641	4099	0	109	-614	5633
Rajasthan	9070	0	-86	321	8216	0	45	1111	9688
Delhi	2824	7	-19	-366	1498	0	-106	-958	3079
UP	10292	820	-28	107	9147	180	-49	76	10402
Uttarakhand	1481	40	-87	572	1017	0	3	462	1501
HP	1115	4	-62	362	728	0	2	347	1178
J&K	1913	478	47	531	1570	277	-20	504	1913
Chandigarh	165	0	-13	0	86	0	-5	-30	170
Total	**37457**	**1349**	**-507**	**696**	**30321**	**457**	**13**	**424**	**37457**

* 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 :

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	1500	1639	1585	38.70	1613	35.96	2.75
	Rihand I STPS (2*500)	1000	870	902	862	20.18	841	20.49	-0.31
	Rihand II STPS (2*500)	1000	970	1020	955	21.79	908	22.40	-0.60
	Rihand III STPS (2*500)	1000	421	0	470	9.42	392	9.68	-0.26
	Dadri I STPS (4*210)	840	602	500	433	12.76	532	12.67	0.09
	Dadri II STPS (2*490)	980	980	725	682	19.04	793	20.28	-1.24
	Unchahar I TPS (2*210)	420	400	344	348	9.04	377	8.51	0.53
	Unchahar II TPS (2*210)	420	400	303	314	8.76	365	8.15	0.61
	Unchahar III TPS (1*220)	210	200	150	152	4.27	178	4.01	0.26
	ISTPP (Jhajjhar) (3*500)	1500	1500	1186	903	22.05	919	23.42	-1.37
	Dadri GPS (4*130.19+2*154.51)	830	825	495	509	13.06	544	12.95	0.11
	Anta GPS (3*88.71+1*153.2)	419	410	211	250	5.90	246	6.04	-0.14
	Auraiya GPS (4*111.19+2*109.30)	663	439	274	272	7.01	292	6.89	0.11
	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**	**9521**	**7749**	**7735**	**192**	**8002**	**192**	**0**
B. NPC	NAPS (2*220)	440	294	325	330	6.93	289	7.06	-0.13
	RAPS- B (2*220)	440	405	450	453	9.78	407	9.72	0.05
	RAPS- C (2*220)	440	241	234	235	4.93	205	5.79	-0.86
	Sub Total (B)	**1320**	**940**	**1009**	**1018**	**21.64**	**901**	**22.56**	**-0.93**
C. NHPC	Chamera I HPS (3*180)	540	534	367	0	1.59	66	1.60	-0.01
	Chamera II HPS (3*100)	300	188	200	0	1.42	59	1.40	0.02
	Chamera III HPS (3*77)	231	231	135	0	0.71	30	0.68	0.03
	Bairasuil HPS(3*60)	180	120	120	0	0.60	25	0.56	0.04
	Salal-HPS (6*115)	690	137	220	120	3.44	143	3.28	0.16
	Tanakpur-HPS (3*40)	94	30	49	27	0.73	30	0.71	0.02
	Uri-I HPS (4*120)	480	176	240	142	4.31	179	4.22	0.09
	Uri-II HPS (4*60)	240	0	0	0	0.00	0	0.00	0.00
	Dhauliganga-HPS (4*70)	280	201	140	0	1.13	47	1.15	-0.02
	Dulhasti-HPS (3*130)	390	387	395	0	3.11	129	3.00	0.11
	Sewa-II HPS (3*40)	120	119	69	0	0.29	12	0.30	-0.01
	Parbati 3 (4*130)	520	0	0	0	0.00	0	0.00	0.00
	Sub Total (C)	**4065**	**2121**	**1935**	**289**	**17**	**722**	**17**	**0**
D.SJVNL	NJPC (6*250)	1500	1605	1316	0	7.03	293	7.09	-0.06
	Rampur HEP (4*68.67)	275	350	373	0	1.93	80	1.91	0.02
	Sub Total (D)	1775	1955	1689	0	8.96	373	9.00	-0.04
E. THDC	Tehri HPS (4*250)	1000	1060	1060	0	7.27	303	7.20	0.07
	Koteshwar HPS (4*100)	400	104	201	90	2.53	105	2.50	0.03
	Sub Total (E)	**1400**	**1164**	**1261**	**90**	**9.80**	**408**	**9.70**	**0.10**
F. BBMB	Bhakra HPS (3*108+2*126+6*157)	1514	537	1086	363	13.60	567	12.88	0.72
	Dehar HPS (6*165)	990	140	165	140	3.38	141	3.36	0.02
	Pong HPS (6*66)	396	206	384	66	5.03	210	4.95	0.08
	Sub Total (F)	**2900**	**883**	**1635**	**569**	**22.01**	**917**	**21.19**	**0.82**
G. IPP(s)/JV(s)	ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	0	0	0.49	20	0.48	0.01
	KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	800	0	3.95	165	3.96	-0.01
	Malana Stg-II HPS (2*50)	100	0	0	0	0.22	9	0.20	0.01
	Shree Cement TPS (2*150)	300	0	89	94	2.77	115	2.91	-0.14
	Budhil HPS(IPP)	70	0	0	0	0.00	0	0.00	0.00
	Sub Total (G)	1662	0	889	94	7.43	309	7.55	-0.13
H. Total Regional Entities (A-G)		**24419**	**16584**	**16167**	**9794**	**279.20**	**11633**	**278.46**	**0.74**

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	680	690	16.78	699
	Guru Nanak Dev TPS(Bhatinda) (4*110)	440	100	100	2.35	98
	Guru Hargobind Singh TPS(L.mbt) (2*210+2*250)	920	349	366	9.27	386
	Goindwal(GVK)		0	0	0.00	0
	Rajpura (2*700)	1400	695	700	20.22	843
	Talwandi Saboo (1*660)	660	365	354	11.20	467
	Thermal (Total)	**4680**	**2189**	**2210**	**59.82**	**2492**
	Total Hydro	1148	255	196	6.83	285
	Total Punjab	**5828**	**2444**	**2406**	**66.65**	**2777**
Haryana	Panipat TPS (4*110+2*210+2*250)	1367	831	781	18.80	783
	DCRTPP (Yamuna nagar) (2*300)	600	274	246	6.02	251
	Faridabad GPS (NTPC)	432	0	0	0.00	0
	RGTPP (khedar) (IPP) (2*600)	1200	578	366	10.59	441
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP) (2*660)	1320	1221	743	24.58	1024
	Thermal (Total)	**4944**	**2904**	**2136**	**59.99**	**2500**
	Total Hydro	62	23	15	0.45	19
	Total Haryana	**5006**	**2927**	**2151**	**60.44**	**2518**
Rajasthan	kota TPS (2*110+2*195+3*210)	1240	894	918	21.25	885
	suratgarh TPS (6*250)	1500	975	989	24.46	1019
	Chabra TPS (3*250)	750	616	556	15.04	627
	Dholpur GPS (3*110)	330	110	113	2.97	124
	Ramgarh GPS (1*3 + 1*35.5 +2*37.5 +1*110 +1*50)	271	153	195	4.86	203
	RAPS A (NPC) (1*100+1*200)	300	181	169	4.17	174
	Barsingsar (NLC) (2*125)	250	96	92	2.02	84
	Giral LTPS (2*125)	250	44	0	0.57	24
	Rajwest LTPS (IPP) (8*135)	1080	730	732	16.45	685
	VS LIGNITE LTPS (IPP) (1*135)	135	0	0	0.00	0
	Kalisindh Thermal(1*600)	600	500	540	11.98	499
	Kawai(Adani) (2*660)	1320	1079	844	26.18	1091
	Thermal (Total)	**8026**	**5378**	**5148**	**130**	**5415**
	Total Hydro	550	255	113	5.58	232
	Wind power	2798	179	116	3.15	131
	Biomass	99	31	31	0.73	31
	Solar	730	1	0	0.12	5
	Renewable/Others (Total)	3627	211	147	4.01	167
	Total Rajasthan	**12203**	**5844**	**5408**	**139.54**	**5814**
UP	Anpara TPS (3*210+2*500)	1630	952	1061	22.50	938
	Obra TPS (2*50+2*94+5*200)	1194	345	337	8.60	358
	Paricha TPS (2*110+2*220+2*250)	1140	731	814	19.50	813
	Panki TPS (2*105)	210	72	113	2.50	104
	Harduaganj TPS (1*60+1*105+2*250)	665	473	485	11.50	479
	Tanda TPS (NTPC) (4*110)	440	288	285	6.99	291
	Roza TPS (IPP) (4*300)	1200	1044	1080	24.21	1009
	Anpara-C (IPP) (2*600)	1200	1008	1008	23.51	980
	Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)	450	320	223	6.46	269
	Thermal (Total)	**8129**	**5233**	**5406**	**125.77**	**5240**
	Vishnuparyag HPS (IPP)	400	98	96	2.30	96
	Other Hydro	527	41	39	0.99	41
	Cogeneration	981	200	200	4.80	200
	Total UP	**10037**	**5572**	**5741**	**133.86**	**5482**
Uttarakhand	Total Hydro	1398	504	233	7.92	330
	Total Uttarakhand	**1398**	**504**	**233**	**7.92**	**330**
Delhi	Rajghat TPS (2*67.5)	135	0	0	0.00	0
	Delhi Gas Turbine (6x30 + 3x34)	282	79	80	1.90	79
	Pragati Gas Turbine (2x104+ 1x122)	330	146	152	3.60	150
	Rithala GPS (3*36)	95	0	0	0.00	0
	Bawana GPS (6*250)	1370	301	281	7.15	298
	Badarpur TPS (NTPC) (3*95+2*210)	705	310	213	5.58	233
	Thermal (Total)	2917	836	726	18.24	760
	Total Delhi	**2917**	**836**	**726**	**18.24**	**760**
HP	Baspa HPS (IPP) (2*150)	300	100	0	1.22	51
	Malana HPS (IPP) (2*43)	86	0	0	0.20	9
	Other Hydro	728	163	129	3.58	149
	Total HP	**1114**	**263**	**129**	**5.00**	**209**
J & K	Baglihar HPS (IPP) (3*150)	450	296	148	3.56	148
	Other Hydro/IPP	436	98	70	1.86	78
	Gas/Diesel/Others	209	0	0	0.00	0
	Total J & K	**1094**	**394**	**218**	**5.42**	226
Total State Control Area Generation		**39597**	**18784**	**17012**	**437.08**	**18116**
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			**2896**	**4550**	**97.03**	**4043**
Total Regional Availability(Gross)		**64017**	**37847**	**31356**	**813.30**	**33792**

IV. Total Hydro Generation:

Regional Entities Hydro	**11432**	**7320**	**947**	**62.75**	**2615**
State Control Area Hydro	**5684**	**1735**	**943**	**34.50**	**1342**
Total Regional Hydro	**17116**	**9055**	**1890**	**97.25**	**3956**

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	-300	-300	0	300	0.00	7.31	-7.31
Gwalior-Agra (D/C)	855	1467	1800	0	28.66	0.00	28.66
Zerda-Kankroli	-119	-48	13	161	0.00	2.00	-2.00
Zerda-Bhinmal	-41	52	155	136	0.44	0.00	0.44
Malanpur-Auraiya	-99	-116	0	183	0.00	2.94	-2.94
Badod-Kota/Morak	-115	-153	0	153	0.00	3.31	-3.31
Mundra-Mohindergarh(HVDC)	1251	1801	1803	0	35.39	0.00	35.39
Vindhyachal - Rihand	485	450	498	0	10.39	0.00	10.39
Sub Total WR	**1917**	**3153**			**74.88**	**15.56**	**59.32**
Pusauli Bypass	400	400	400	0	9.85	0.00	9.85
MZP- GKP (D/C)	4	150	296	58	3.72	0.00	3.72
Patna-Balia(D/C)	615	666	900	0	17.28	0.00	17.28
B'Sharif-Balia (D/C)	89	40	277	0	2.34	0.00	2.34
Pusauli-Balia	-79	-111	0	143	0.00	2.15	-2.15
Gaya-Fatehpur (765 Kv)	79	183	365	0	5.35	0.00	5.35
Pusauli-Sahupuri	0	121	134	0	1.41	0.00	1.41
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-34	-30	0	40	0.00	0.71	-0.71
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	-95	-22	148	95	0.62	0.00	0.62
Sub Total ER	**979**	**1397**			**40.56**	**2.86**	**37.71**
Total IR Exch	**2896**	**4550**			**115.44**	**18.41**	**97.03**

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
21.76	0.57	22.33	6.98	-14.65	8.14	11.53	4.99	-4.99

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
42.44	60.57	103.01	37.71	59.32	97.03	-4.73	-1.25	-5.98

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	0.00	1.60	11.74	44.93	53.33	18.33	13.76	2.85	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)
50.37	0.00	49.72	11.11	50.01	0.09	0.10	50.32	49.91

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	410	23:19	401	09:37	0.0	0.0	0.0	0.0
Gorakhpur	400	410	00:03	398	07:49	0.0	0.0	0.0	0.0
Bareilly	400	423	20:59	407	17:57	0.0	0.0	2.1	0.0
Kanpur	400	421	20:56	404	07:36	0.0	0.0	0.2	0.0
Dadri	400	421	20:57	406	10:53	0.0	0.0	0.4	0.0
Ballabhgarh	400	430	20:56	412	08:29	0.0	0.0	59.6	0.0
Bawana	400	426	20:56	410	11:09	0.0	0.0	34.3	0.0
Bassi	400	426	20:21	392	08:36	0.0	0.0	9.3	0.0
Hissar	400	418	20:59	396	11:10	0.0	0.0	0.0	0.0
Moga	400	422	20:59	402	09:14	0.0	0.0	3.0	0.0
Abdullapur	400	425	20:23	396	05:30	0.0	0.0	11.7	0.0
Nalagarh	400	428	20:25	405	11:11	0.0	0.0	10.2	0.0
Kishenpur	400	429	13:46	395	18:13	0.0	0.0	9.6	0.0
Wagoora	400	420	13:47	366	18:14	16.4	45.1	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	780	20:56	745	07:49	0.0	0.0	0.0	0.0
Balia	765	769	05:01	749	09:28	0.0	0.0	0.0	0.0
Moga	765	801	20:58	766	07:49	0.0	0.0	0.1	0.0
Agra	765	797	20:56	756	07:50	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	762	20:56	738	09:14	0.0	7.0	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	503.10	1232.31	507.96	1455.60	124.93	388.11
Pong	426.72	384.05	410.24	504.32	416.98	755.85	65.84	332.47
Tehri	829.79	740.04	818.15	966.00	820.35	1010.00	39.64	162.00
Koteshwar	612.50	598.50	610.11	4.60	609.70	4.40	162.00	168.00
Chamera-I	760.00	748.75	759.70	0.00	0.00	0.00	0.00	0.00
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	509.32	1.10	514.82	2.99	53.54	80.59

*** 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	8	0	-457	267	0	-11.17	2.88	-8.29
Delhi	-917	-25	-16	-575	224	-16	-14.94	1.26	-13.67
Haryana	-757	144	0	-733	92	0	-19.18	2.33	-16.85
HP	423	-76	0	399	-36	0	9.51	-3.30	6.21
J&K	430	74	0	335	196	0	7.83	2.22	10.05
CHD	-30	0	0	0	0	0	-0.24	0.00	-0.24
Rajasthan	497	612	2	497	-177	2	11.92	10.69	22.61
UP	76	0	0	107	0	0	1.82	0.00	1.82
Uttarakhand	294	168	0	294	278	0	7.05	6.13	13.18
Total	**-467**	**904**	**-14**	**-134**	**843**	**-14**	**-7.40**	**22.21**	**14.81**

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	-457	-482	306	1	0	0
Delhi	-465	-917	398	-25	-16	-16
Haryana	-733	-960	144	56	0	0
HP	423	379	0	-619	0	0
J&K	430	237	196	0	0	0
CHD	0	-30	0	0	0	0
Rajasthan	497	497	613	-297	2	2
UP	112	41	0	0	0	0
Uttarakhand	294	294	439	109	0	0

XI. System Constraints:

XII. Grid Disturbance / Any Other Significant Event:

XIII. Weather Conditions For 30.11.2014 :

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 : 30.11.2014 **पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER**