पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)

उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 22.11.2014
Date of Reporting : 23.11.2014

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
36507	1256	37763	50.06	29010	1425	30435	50.11	773.7	43.83

* 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	43.65	6.44		50.09	49.25	50.59	1.34	100.67	0.00
Haryana	48.79	0.32		49.11	55.71	54.16	-1.55	103.27	0.00
Rajasthan	94.58	5.28	1.12	100.98	81.66	90.98	9.33	191.97	0.00
Delhi	20.61			20.61	36.84	36.46	-0.38	57.07	0.00
UP	121.40	3.40	4.80	129.60	92.42	91.34	-1.07	220.94	43.19
Uttarakhand		7.54		7.54	24.14	24.77	0.62	32.30	0.24
HP		5.59		5.59	17.56	18.28	0.72	23.87	0.40
J & K		6.84	0.00	6.84	30.37	33.36	2.99	40.20	0.00
Chandigarh				0.00	3.21	3.35	0.14	3.35	0.00
Total	**329.04**	**35.41**	**5.92**	**370.37**	**391.16**	**403.29**	**12.12**	**773.65**	**43.83**

* 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	4733	0	101	-93	3230	0	92	-349	5402
Haryana	5770	0	-89	-605	3491	0	-135	-602	5770
Rajasthan	8254	0	529	930	7981	0	2	964	9290
Delhi	3019	0	-46	-495	1667	0	45	-883	3019
UP	9827	1210	-47	143	9168	1425	79	92	10303
Uttarakhand	1710	40	30	448	1085	0	4	436	1711
HP	1127	6	-71	59	736	0	-23	345	1311
J&K	1886	0	-13	431	1564	0	114	379	1933
Chandigarh	181	0	-4	0	88	0	6	-31	181
Total	**36507**	**1256**	**391**	**819**	**29010**	**1425**	**184**	**351**	**36507**

* 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	1500	1591	1667	38.79	1616	35.97	2.83
	Rihand I STPS (2*500)	1000	870	943	882	22.48	936	20.75	1.72
	Rihand II STPS (2*500)	1000	970	1040	924	24.54	1023	22.92	1.63
	Rihand III STPS (2*500)	1000	469	495	487	11.89	495	11.02	0.87
	Dadri I STPS (4*210)	840	815	710	597	14.36	598	14.96	-0.60
	Dadri II STPS (2*490)	980	980	932	745	20.34	847	21.11	-0.77
	Unchahar I TPS (2*210)	420	400	386	354	9.81	409	9.14	0.67
	Unchahar II TPS (2*210)	420	400	351	320	9.50	396	8.72	0.77
	Unchahar III TPS (1*220)	210	200	191	172	4.86	203	4.48	0.38
	ISTPP (Jhajjhar) (3*500)	1500	1500	931	885	25.18	1049	27.59	-2.41
	Dadri GPS (4*130.19+2*154.51)	830	820	384	417	9.57	399	9.60	-0.03
	Anta GPS (3*88.71+1*153.2)	419	412	308	308	8.47	353	8.55	-0.09
	Auraiya GPS (4*111.19+2*109.30)	663	439	325	308	7.64	318	7.50	0.13
	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**	**9779**	**8587**	**8066**	**207**	**8645**	**202**	**5**
B. NPC	NAPS (2*220)	440	295	327	331	6.99	291	7.08	-0.09
	RAPS- B (2*220)	440	407	449	450	9.78	408	9.77	0.01
	RAPS- C (2*220)	440	410	455	455	9.89	412	9.84	0.05
	Sub Total (B)	**1320**	**1112**	**1231**	**1236**	**26.66**	**1111**	**26.69**	**-0.03**
C. NHPC	Chamera I HPS (3*180)	540	534	539	0	1.88	78	1.80	0.08
	Chamera II HPS (3*100)	300	200	210	0	1.44	60	1.40	0.04
	Chamera III HPS (3*77)	231	231	228	0	0.79	33	0.75	0.04
	Bairasuil HPS(3*60)	180	120	120	0	0.65	27	0.60	0.05
	Salal-HPS (6*115)	690	162	203	220	4.20	175	3.90	0.31
	Tanakpur-HPS (3*40)	94	35	52	30	0.85	35	0.83	0.02
	Uri-I HPS (4*120)	480	189	230	140	4.70	196	4.53	0.17
	Uri-II HPS (4*60)	240	0	0	0	0.00	0	0.00	0.00
	Dhauliganga-HPS (4*70)	280	208	210	0	1.35	56	1.29	0.06
	Dulhasti-HPS (3*130)	390	387	393	136	3.50	146	3.40	0.10
	Sewa-II HPS (3*40)	120	79	86	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**	**2145**	**2271**	**526**	**20**	**818**	**19**	**1**
D.SJVNL	NJPC (6*250)	1500	1605	1605	0	8.62	359	8.50	0.12
	Rampur HEP (4*68.67)	275	350	372	0	2.31	96	2.25	0.06
	Sub Total (D)	1775	1955	1977	0	10.93	455	10.75	0.18
E. THDC	Tehri HPS (4*250)	1000	1060	1062	0	7.57	315	7.50	0.07
	Koteshwar HPS (4*100)	400	104	201	89	2.53	105	2.50	0.03
	Sub Total (E)	**1400**	**1164**	**1263**	**89**	**10.09**	**421**	**10.00**	**0.09**
F. BBMB	Bhakra HPS (3*108+2*126+6*157)	1514	498	997	387	12.53	522	11.96	0.57
	Dehar HPS (6*165)	990	142	165	145	3.44	143	3.40	0.04
	Pong HPS (6*66)	396	180	324	126	4.37	182	4.32	0.04
	Sub Total (F)	**2900**	**820**	**1486**	**658**	**20.34**	**847**	**19.68**	**0.66**
G. IPP(s)/JV(s)	ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	97	0	0.62	26	0.60	0.01
	KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	860	0	4.68	195	4.68	0.00
	Malana Stg-II HPS (2*50)	100	0	0	0	0.00	0	0.00	0.00
	Shree Cement TPS (2*150)	300	0	146	98	2.72	113	2.70	0.01
	Budhil HPS(IPP)	70	0	69	0	0.18	7	0.18	0.00
	Sub Total (G)	1662	0	1172	98	8.19	341	8.16	0.03
H. Total Regional Entities (A-G)		**24419**	**16975**	**17987**	**10673**	**303.30**	**12638**	**296.43**	**6.88**

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	2.20	92
	Guru Hargobind Singh TPS(L.mbt) (2*210+2*250)	920	362	365	9.04	377
	Goindwal(GVK)		0	0	0.00	0
	Rajpura (2*700)	1400	700	696	16.90	704
	Talwandi Saboo (1*660)	660	403	371	11.53	480
	Thermal (Total)	**4680**	**1715**	**1682**	**43.65**	**1819**
	Total Hydro	1148	206	191	6.44	268
	Total Punjab	**5828**	**1921**	**1873**	**50.09**	**2087**
Haryana	Panipat TPS (4*110+2*210+2*250)	1367	0	0	0.00	0
	DCRTPP (Yamuna nagar) (2*300)	600	271	243	5.94	247
	Faridabad GPS (NTPC)	432	0	0	0.00	0
	RGTPP (khedar) (IPP) (2*600)	1200	1138	739	20.17	840
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP) (2*660)	1320	958	718	22.69	945
	Thermal (Total)	**4944**	**2367**	**1700**	**48.79**	**2033**
	Total Hydro	62	11	15	0.32	13
	Total Haryana	**5006**	**2378**	**1715**	**49.11**	**2046**
Rajasthan	kota TPS (2*110+2*195+3*210)	1240	821	826	20.21	842
	suratgarh TPS (6*250)	1500	1129	1134	26.63	1109
	Chabra TPS (3*250)	750	221	221	4.20	175
	Dholpur GPS (3*110)	330	129	127	3.10	129
	Ramgarh GPS (1*3 + 1*35.5 +2*37.5 +1*110 +1*50)	271	232	179	5.51	230
	RAPS A (NPC) (1*100+1*200)	300	186	172	4.47	186
	Barsingsar (NLC) (2*125)	250	94	91	2.15	90
	Giral LTPS (2*125)	250	90	81	1.69	71
	Rajwest LTPS (IPP) (8*135)	1080	726	734	17.21	717
	VS LIGNITE LTPS (IPP) (1*135)	135	0	0	0.00	0
	Kalisindh Thermal(1*600)	600	0	0	0.00	0
	Kawai(Adani) (2*660)	1320	65	1178	9.41	392
	Thermal (Total)	**8026**	**3693**	**4743**	**95**	**3941**
	Total Hydro	550	250	124	5.28	220
	Wind power	2798	33	37	0.22	9
	Biomass	99	26	26	0.62	26
	Solar	730	3	0	0.28	12
	Renewable/Others (Total)	3627	62	63	1.12	47
	Total Rajasthan	**12203**	**4005**	**4930**	**100.98**	**4208**
UP	Anpara TPS (3*210+2*500)	1630	935	925	22.30	929
	Obra TPS (2*50+2*94+5*200)	1194	455	451	12.00	500
	Paricha TPS (2*110+2*220+2*250)	1140	751	772	18.60	775
	Panki TPS (2*105)	210	68	135	3.00	125
	Harduaganj TPS (1*60+1*105+2*250)	665	263	227	6.20	258
	Tanda TPS (NTPC) (4*110)	440	228	278	6.90	288
	Roza TPS (IPP) (4*300)	1200	1031	1071	25.00	1042
	Anpara-C (IPP) (2*600)	1200	531	990	20.90	871
	Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)	450	280	280	6.50	271
	Thermal (Total)	**8129**	**4542**	**5129**	**121.40**	**5058**
	Vishnuparyag HPS (IPP)	400	105	102	2.50	104
	Other Hydro	527	27	32	0.90	38
	Cogeneration	981	200	200	4.80	200
	Total UP	**10037**	**4874**	**5463**	**129.60**	**5296**
Uttarakhand	Total Hydro	1398	491	229	7.54	314
	Total Uttarakhand	**1398**	**491**	**229**	**7.54**	**314**
Delhi	Rajghat TPS (2*67.5)	135	0	0	0.00	0
	Delhi Gas Turbine (6x30 + 3x34)	282	65	79	1.90	79
	Pragati Gas Turbine (2x104+ 1x122)	330	150	155	3.68	153
	Rithala GPS (3*36)	95	0	0	0.00	0
	Bawana GPS (6*250)	1370	294	270	7.11	296
	Badarpur TPS (NTPC) (3*95+2*210)	705	318	309	7.92	330
	Thermal (Total)	2917	827	813	20.61	859
	Total Delhi	**2917**	**827**	**813**	**20.61**	**859**
HP	Baspa HPS (IPP) (2*150)	300	28	0	1.25	52
	Malana HPS (IPP) (2*43)	86	76	0	0.24	10
	Other Hydro	728	154	144	4.10	171
	Total HP	**1114**	**258**	**144**	**5.59**	**233**
J & K	Baglihar HPS (IPP) (3*150)	450	296	148	4.98	208
	Other Hydro/IPP	436	98	70	1.86	78
	Gas/Diesel/Others	209	0	0	0.00	0
	Total J & K	**1094**	**394**	**218**	**6.84**	285
Total State Control Area Generation		**39597**	**15148**	**15385**	**370.37**	**15328**
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			**4781**	**4373**	**126.62**	**5276**
Total Regional Availability(Gross)		**64017**	**37916**	**30431**	**800.29**	**33241**

IV. Total Hydro Generation:

Regional Entities Hydro	**11432**	**7954**	**1273**	**66.27**	**2761**
State Control Area Hydro	**5684**	**1637**	**953**	**35.41**	**1371**
Total Regional Hydro	**17116**	**9591**	**2226**	**101.69**	**4133**

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	-400	150	500	0.42	5.27	-4.86
Gwalior-Agra (D/C)	1277	1246	2251	0	38.68	0.00	38.68
Zerda-Kankroli	-105	-157	104	167	0.00	1.50	-1.50
Zerda-Bhinmal	0	-33	251	76	0.88	0.00	0.88
Malanpur-Auraiya	-30	-54	0	59	0.00	2.85	-2.85
Badod-Kota/Morak	12	-140	40	98	0.00	1.42	-1.42
Mundra-Mohindergarh(HVDC)	2202	2002	2204	0	49.52	0.00	49.52
Vindhyachal - Rihand	488	331	508	0	10.70	0.00	10.70
Sub Total WR	**3544**	**2795**			**100.19**	**11.04**	**89.14**
Pusauli Bypass	400	400	400	0	9.64	0.00	9.64
MZP- GKP (D/C)	160	218	296	12	3.94	0.00	3.94
Patna-Balia(D/C)	642	718	806	0	16.56	0.00	16.56
B'Sharif-Balia (D/C)	30	43	103	56	0.67	0.00	0.67
Pusauli-Balia	-117	-116	0	150	0.00	2.84	-2.84
Gaya-Fatehpur (765 Kv)	140	236	386	0	6.07	0.00	6.07
Pusauli-Sahupuri	89	73	185	0	3.00	0.00	3.00
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-36	-40	0	40	0.00	0.81	-0.81
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	-71	46	172	96	1.24	0.00	1.24
Sub Total ER	**1237**	**1578**			**41.12**	**3.64**	**37.48**
Total IR Exch	**4781**	**4373**			**141.30**	**14.68**	**126.62**

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
19.83	0.71	20.54	5.39	-12.02	8.45	14.10	4.97	-4.97

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
39.34	76.62	115.97	37.48	89.14	126.62	-1.87	12.52	10.65

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	1.18	12.99	56.88	67.85	12.01	6.60	0.56	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	17.03	49.75	17.27	49.98	0.06	0.08	50.24	49.96

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	0	00:00	9999	00:00	0.0	0.0	0.0	0.0
Gorakhpur	400	413	00:59	214	15:47	0.1	0.1	0.0	0.0
Bareilly	400	0	00:00	9999	00:00	0.0	0.0	0.0	0.0
Kanpur	400	420	00:58	404	11:18	0.0	0.0	0.0	0.0
Dadri	400	420	03:19	403	12:18	0.2	0.2	0.0	0.0
Ballabhgarh	400	428	03:03	409	12:18	0.0	0.0	36.6	0.0
Bawana	400	424	09:35	408	18:14	0.0	0.0	12.8	0.0
Bassi	400	428	20:57	398	06:29	0.0	0.0	9.0	0.0
Hissar	400	416	04:02	397	12:18	0.0	0.0	0.0	0.0
Moga	400	425	04:02	406	12:18	0.0	0.0	20.1	0.0
Abdullapur	400	423	00:00	396	18:23	0.0	0.0	3.9	0.0
Nalagarh	400	425	21:56	406	09:12	0.0	0.0	8.3	0.0
Kishenpur	400	427	02:56	395	18:17	0.0	0.0	23.4	0.0
Wagoora	400	412	03:00	368	18:08	14.1	33.4	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	774	20:57	742	12:18	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	804	04:00	770	12:20	0.0	0.0	7.0	0.0
Agra	765	796	20:56	757	06:30	0.0	0.0	0.0	0.0
Bhiwani	765	807	04:02	775	12:22	0.0	0.0	16.5	0.0
Unnao	765	765	01:12	734	12:24	0.0	19.6	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	504.28	1272.20	508.88	1500.16	172.19	374.63
Pong	426.72	384.05	411.09	534.70	417.93	794.52	52.61	273.71
Tehri	829.79	740.04	820.10	1004.00	821.75	1035.00	64.60	167.00
Koteshwar	612.50	598.50	609.44	4.30	610.00	4.69	167.00	168.00
Chamera-I	760.00	748.75	759.60	0.00	0.00	0.00	52.31	50.55
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	509.78	1.55	515.62	2.77	45.28	93.17

*** 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	33	0	-357	264	0	-8.77	3.58	-5.19
Delhi	-828	-41	-14	-597	117	-14	-14.56	0.35	-14.22
Haryana	-774	172	0	-758	153	0	-19.65	3.47	-16.18
HP	422	-76	0	397	-338	0	9.47	-2.93	6.54
J&K	331	49	0	333	98	0	6.94	1.94	8.87
CHD	-31	0	0	0	0	0	-0.24	0.14	-0.11
Rajasthan	489	473	2	489	439	2	11.73	12.13	23.86
UP	92	0	0	143	0	0	2.72	0.00	2.72
Uttarakhand	244	192	0	244	204	0	5.85	6.52	12.37
Total	**-438**	**802**	**-12**	**-106**	**937**	**-12**	**-6.51**	**25.18**	**18.68**

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	-357	-382	303	6	0	0
Delhi	-487	-828	274	-82	-14	-14
Haryana	-758	-978	174	29	0	0
HP	422	378	49	-708	0	0
J&K	350	236	98	49	0	0
CHD	0	-31	20	-15	0	0
Rajasthan	489	489	984	84	2	2
UP	158	92	0	0	0	0
Uttarakhand	244	244	374	185	0	0

XI. System Constraints:

XII. Grid Disturbance / Any Other Significant Event:

XIII. Weather Conditions For 22.11.2014 :

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 : 22.11.2014 **पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER**