पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)

उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 21.11.2014
Date of Reporting : 22.11.2014

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
37831	1290	39121	50.16	29061	2145	31206	50.14	789.2	51.16

* 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	45.27	7.22		52.49	44.34	46.89	2.55	99.38	2.07
Haryana	49.86	0.41		50.27	54.63	54.39	-0.24	104.66	2.07
Rajasthan	122.85	5.22	2.37	130.44	70.25	74.25	4.00	204.69	0.00
Delhi	20.79			20.79	38.01	37.85	-0.16	58.64	0.00
UP	120.90	3.40	4.80	129.10	91.32	92.08	0.76	221.18	46.43
Uttarakhand		7.65		7.65	23.67	24.73	1.07	32.39	0.30
HP		5.97		5.97	17.61	18.30	0.68	24.27	0.30
J & K		6.85	0.00	6.85	30.86	33.69	2.83	40.54	0.00
Chandigarh				0.00	3.26	3.45	0.19	3.45	0.00
Total	**359.67**	**36.73**	**7.17**	**403.57**	**373.95**	**385.63**	**11.68**	**789.20**	**51.16**

* 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	4729	0	25	-237	3273	0	122	-473	5077
Haryana	5697	0	-76	-595	3556	0	109	-599	5697
Rajasthan	9092	0	55	582	7943	0	39	892	9348
Delhi	3157	0	-12	-441	1464	0	-146	-854	3157
UP	10113	1250	-94	149	9251	2145	111	81	10113
Uttarakhand	1692	40	48	550	1106	0	58	412	1703
HP	1251	0	26	39	750	0	1	345	1353
J&K	1911	0	-35	421	1626	0	156	379	1911
Chandigarh	189	0	2	0	92	0	2	-31	189
Total	**37831**	**1290**	**-61**	**468**	**29061**	**2145**	**452**	**155**	**37831**

* 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	1446	1600	1535	34.07	1420	34.70	-0.63
	Rihand I STPS (2*500)	1000	870	917	926	22.28	928	20.88	1.40
	Rihand II STPS (2*500)	1000	970	1032	1028	24.55	1023	23.25	1.30
	Rihand III STPS (2*500)	1000	470	496	502	12.00	500	11.27	0.73
	Dadri I STPS (4*210)	840	796	672	538	16.37	682	15.74	0.63
	Dadri II STPS (2*490)	980	980	951	684	21.23	885	21.29	-0.06
	Unchahar I TPS (2*210)	420	400	435	367	10.01	417	9.32	0.69
	Unchahar II TPS (2*210)	420	400	372	329	9.63	401	8.95	0.68
	Unchahar III TPS (1*220)	210	200	212	150	4.71	196	4.35	0.36
	ISTPP (Jhajjhar) (3*500)	1500	1500	1196	883	22.37	932	23.61	-1.24
	Dadri GPS (4*130.19+2*154.51)	830	819	348	507	9.64	402	9.47	0.16
	Anta GPS (3*88.71+1*153.2)	419	412	350	301	8.67	361	8.41	0.26
	Auraiya GPS (4*111.19+2*109.30)	663	432	313	265	7.36	307	7.19	0.17
	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**	**9699**	**8894**	**8015**	**203**	**8455**	**199**	**4**
B. NPC	NAPS (2*220)	440	293	327	337	7.01	292	7.03	-0.02
	RAPS- B (2*220)	440	407	452	450	9.75	406	9.77	-0.01
	RAPS- C (2*220)	440	410	457	456	9.89	412	9.84	0.05
	Sub Total (B)	**1320**	**1110**	**1236**	**1243**	**26.65**	**1110**	**26.64**	**0.01**
C. NHPC	Chamera I HPS (3*180)	540	534	524	0	1.78	74	1.70	0.08
	Chamera II HPS (3*100)	300	200	203	0	1.45	60	1.40	0.05
	Chamera III HPS (3*77)	231	231	219	0	0.82	34	0.80	0.02
	Bairasuil HPS(3*60)	180	120	120	0	0.66	27	0.62	0.04
	Salal-HPS (6*115)	690	150	135	212	3.79	158	3.61	0.18
	Tanakpur-HPS (3*40)	94	34	62	30	0.85	35	0.82	0.03
	Uri-I HPS (4*120)	480	188	244	132	4.72	197	4.58	0.14
	Uri-II HPS (4*60)	240	0	0	0	0.00	0	0.00	0.00
	Dhauliganga-HPS (4*70)	280	208	208	0	1.31	54	1.24	0.07
	Dulhasti-HPS (3*130)	390	387	392	134	3.74	156	3.60	0.14
	Sewa-II HPS (3*40)	120	79	82	0	0.25	11	0.24	0.01
	Parbati 3 (4*130)	520	0	0	0	0.00	0	0.00	0.00
	Sub Total (C)	**4065**	**2132**	**2189**	**508**	**19**	**807**	**19**	**1**
D.SJVNL	NJPC (6*250)	1500	1605	1614	0	8.91	371	8.74	0.17
	Rampur HEP (4*68.67)	275	350	292	0	2.37	99	2.29	0.08
	Sub Total (D)	1775	1955	1906	0	11.28	470	11.04	0.24
E. THDC	Tehri HPS (4*250)	1000	1060	1049	0	7.57	316	7.50	0.07
	Koteshwar HPS (4*100)	400	104	200	90	2.52	105	2.50	0.02
	Sub Total (E)	**1400**	**1164**	**1249**	**90**	**10.09**	**421**	**10.00**	**0.09**
F. BBMB	Bhakra HPS (3*108+2*126+6*157)	1514	498	1048	359	12.27	511	11.95	0.32
	Dehar HPS (6*165)	990	152	330	145	3.76	157	3.65	0.12
	Pong HPS (6*66)	396	214	318	126	5.06	211	5.13	-0.07
	Sub Total (F)	**2900**	**864**	**1696**	**630**	**21.09**	**879**	**20.73**	**0.37**
G. IPP(s)/JV(s)	ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	16	0	0.66	27	0.64	0.01
	KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	860	0	4.67	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	142	86	2.94	122	2.91	0.02
	Budhil HPS(IPP)	70	0	35	0	0.18	8	0.18	0.00
	Sub Total (G)	1662	0	1053	86	8.45	352	8.41	0.04
H. Total Regional Entities (A-G)		**24419**	**16923**	**18222**	**10572**	**299.86**	**12494**	**293.95**	**5.91**

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	4.08	170
	Guru Nanak Dev TPS(Bhatinda) (4*110)	440	90	90	2.30	96
	Guru Hargobind Singh TPS(L.mbt) (2*210+2*250)	920	363	368	9.27	386
	Goindwal(GVK)		0	0	0.00	0
	Rajpura (2*700)	1400	701	694	18.78	782
	Talwandi Saboo (1*660)	660	366	369	10.85	452
	Thermal (Total)	**4680**	**1680**	**1681**	**45.27**	**1886**
	Total Hydro	1148	390	196	7.22	301
	Total Punjab	**5828**	**2070**	**1877**	**52.49**	**2187**
Haryana	Panipat TPS (4*110+2*210+2*250)	1367	0	0	0.00	0
	DCRTPP (Yamuna nagar) (2*300)	600	261	238	5.93	247
	Faridabad GPS (NTPC)	432	0	0	0.00	0
	RGTPP (khedar) (IPP) (2*600)	1200	1159	730	21.72	905
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP) (2*660)	1320	956	740	22.22	926
	Thermal (Total)	**4944**	**2376**	**1708**	**49.86**	**2078**
	Total Hydro	62	12	17	0.41	17
	Total Haryana	**5006**	**2388**	**1725**	**50.27**	**2095**
Rajasthan	kota TPS (2*110+2*195+3*210)	1240	829	836	20.01	834
	suratgarh TPS (6*250)	1500	1135	1141	25.99	1083
	Chabra TPS (3*250)	750	218	212	5.28	220
	Dholpur GPS (3*110)	330	124	129	3.11	130
	Ramgarh GPS (1*3 + 1*35.5 +2*37.5 +1*110 +1*50)	271	199	199	5.37	224
	RAPS A (NPC) (1*100+1*200)	300	191	176	4.45	185
	Barsingsar (NLC) (2*125)	250	91	91	2.15	89
	Giral LTPS (2*125)	250	77	74	1.53	64
	Rajwest LTPS (IPP) (8*135)	1080	726	683	16.92	705
	VS LIGNITE LTPS (IPP) (1*135)	135	0	0	0.00	0
	Kalisindh Thermal(1*600)	600	444	470	9.21	384
	Kawai(Adani) (2*660)	1320	1180	1178	28.84	1202
	Thermal (Total)	**8026**	**5214**	**5189**	**123**	**5119**
	Total Hydro	550	255	116	5.22	217
	Wind power	2798	36	32	1.32	55
	Biomass	99	32	32	0.76	32
	Solar	730	3	0	0.30	12
	Renewable/Others (Total)	3627	71	64	2.37	99
	Total Rajasthan	**12203**	**5540**	**5369**	**130.44**	**5435**
UP	Anpara TPS (3*210+2*500)	1630	918	863	21.70	904
	Obra TPS (2*50+2*94+5*200)	1194	446	450	10.60	442
	Paricha TPS (2*110+2*220+2*250)	1140	752	728	18.50	771
	Panki TPS (2*105)	210	108	72	2.10	88
	Harduaganj TPS (1*60+1*105+2*250)	665	230	234	5.40	225
	Tanda TPS (NTPC) (4*110)	440	274	274	6.80	283
	Roza TPS (IPP) (4*300)	1200	1026	1080	25.20	1050
	Anpara-C (IPP) (2*600)	1200	957	959	23.30	971
	Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)	450	320	320	7.30	304
	Thermal (Total)	**8129**	**5031**	**4980**	**120.90**	**5038**
	Vishnuparyag HPS (IPP)	400	106	107	2.50	104
	Other Hydro	527	64	32	0.90	38
	Cogeneration	981	200	200	4.80	200
	Total UP	**10037**	**5401**	**5319**	**129.10**	**5275**
Uttarakhand	Total Hydro	1398	485	231	7.65	319
	Total Uttarakhand	**1398**	**485**	**231**	**7.65**	**319**
Delhi	Rajghat TPS (2*67.5)	135	0	0	-0.01	0
	Delhi Gas Turbine (6x30 + 3x34)	282	79	77	1.93	81
	Pragati Gas Turbine (2x104+ 1x122)	330	150	152	3.68	153
	Rithala GPS (3*36)	95	0	0	0.00	0
	Bawana GPS (6*250)	1370	317	273	7.19	300
	Badarpur TPS (NTPC) (3*95+2*210)	705	315	313	8.00	333
	Thermal (Total)	2917	861	815	20.79	866
	Total Delhi	**2917**	**861**	**815**	**20.79**	**866**
HP	Baspa HPS (IPP) (2*150)	300	30	30	1.53	64
	Malana HPS (IPP) (2*43)	86	44	0	0.26	11
	Other Hydro	728	179	165	4.18	174
	Total HP	**1114**	**253**	**195**	**5.97**	**249**
J & K	Baglihar HPS (IPP) (3*150)	450	300	150	4.99	208
	Other Hydro/IPP	436	97	70	1.86	78
	Gas/Diesel/Others	209	0	0	0.00	0
	Total J & K	**1094**	**397**	**220**	**6.85**	286
Total State Control Area Generation		**39597**	**17395**	**15751**	**403.57**	**16711**
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			**2909**	**2924**	**106.58**	**4441**
Total Regional Availability(Gross)		**64017**	**38526**	**29247**	**810.01**	**33646**

IV. Total Hydro Generation:

Regional Entities Hydro	**11432**	**7916**	**1228**	**67.16**	**2798**
State Control Area Hydro	**5684**	**1856**	**1007**	**36.73**	**1426**
Total Regional Hydro	**17116**	**9772**	**2235**	**103.89**	**4224**

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	-200	-500	0	500	0.00	8.63	-8.63
Gwalior-Agra (D/C)	701	941	1788	0	29.14	0.00	29.14
Zerda-Kankroli	-198	-279	0	279	0.00	3.85	-3.85
Zerda-Bhinmal	-97	-157	111	193	0.00	1.12	-1.12
Malanpur-Auraiya	-126	-159	0	166	0.00	3.23	-3.23
Badod-Kota/Morak	-140	-242	0	242	4.16	4.16	0.00
Mundra-Mohindergarh(HVDC)	2199	2202	2205	0	52.63	0.00	52.63
Vindhyachal - Rihand	0	0	0	0	0.00	0.00	0.00
Sub Total WR	**2139**	**1806**			**85.92**	**20.99**	**64.94**
Pusauli Bypass	400	400	400	0	9.62	0.00	9.62
MZP- GKP (D/C)	-20	-130	252	76	3.15	0.00	3.15
Patna-Balia(D/C)	559	700	840	0	16.85	0.00	16.85
B'Sharif-Balia (D/C)	-62	5	111	-109	0.44	0.00	0.44
Pusauli-Balia	-136	-122	0	-153	0.00	-2.76	2.76
Gaya-Fatehpur (765 Kv)	52	211	352	0	5.80	0.00	5.80
Pusauli-Sahupuri	91	65	153	0	2.34	0.00	2.34
K'nasa-Sahupuri	0	0	0	0	0.48	0.00	0.48
Son Ngr-Rihand	0	-32	0	40	0.00	0.81	-0.81
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	-114	21	153	114	1.01	0.00	1.01
Sub Total ER	**770**	**1118**			**39.69**	**-1.95**	**41.65**
Total IR Exch	**2909**	**2924**			**125.62**	**19.03**	**106.58**

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
20.11	0.82	20.93	5.39	-14.13	8.38	12.03	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
39.66	60.98	100.64	41.65	64.94	106.58	1.98	3.95	5.94

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	0.28	2.36	17.43	50.21	56.60	16.46	8.82	0.69	0.00

<---------- 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)
50.33	13.03	49.69	6.36	49.99	0.09	0.08	50.31	49.82

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	504.40	1285.56	508.98	1500.16	177.66	369.93
Pong	426.72	384.05	411.20	534.70	418.04	807.91	59.27	324.57
Tehri	829.79	740.04	820.30	1008.00	821.90	1040.00	64.99	167.00
Koteshwar	612.50	598.50	609.43	4.29	610.00	4.69	167.00	167.00
Chamera-I	760.00	748.75	759.58	0.00	0.00	0.00	53.16	47.88
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	509.83	2.06	515.74	2.94	53.54	65.98

*** 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	-484	12	0	-459	222	0	-11.22	2.36	-8.86
Delhi	-777	-56	-20	-568	147	-20	-14.08	0.89	-13.19
Haryana	-774	175	0	-758	163	0	-19.65	3.69	-15.96
HP	422	-76	0	397	-358	0	9.47	-2.83	6.65
J&K	282	98	0	333	88	0	6.64	2.22	8.86
CHD	-31	0	0	0	0	0	-0.24	0.12	-0.12
Rajasthan	489	401	2	489	91	2	11.73	10.17	21.90
UP	81	0	0	149	0	0	2.79	0.00	2.79
Uttarakhand	244	169	0	244	306	0	5.85	6.69	12.54
Total	**-549**	**722**	**-18**	**-173**	**659**	**-18**	**-8.71**	**23.31**	**14.60**

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	-459	-484	284	2	0	0
Delhi	-449	-786	338	-87	-20	-20
Haryana	-758	-978	178	54	0	0
HP	422	378	74	-685	0	0
J&K	350	236	98	88	0	0
CHD	0	-31	25	-10	0	0
Rajasthan	489	489	931	-418	2	2
UP	158	81	0	0	0	0
Uttarakhand	244	244	407	169	0	0

XI. System Constraints:

XII. Grid Disturbance / Any Other Significant Event:

XIII. Weather Conditions For 21.11.2014 :

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 : 21.11.2014 **पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER**