पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)

उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 11.10.2014
Date of Reporting : 12.10.2014

I. Regional Availability/Demand:

Evening Peak (20:00 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
39609	2330	41939	50.10	35321	2825	38146	49.90	878.4	77.72

* 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	61.09	13.89		74.97	55.18	56.85	1.67	131.83	4.83
Haryana	69.86	0.66		70.51	64.59	65.30	0.71	135.82	0.00
Rajasthan	127.59	1.16	3.96	132.71	50.55	60.00	9.45	192.71	4.79
Delhi	31.00			31.00	52.04	49.57	-2.47	80.56	0.00
UP	114.10	10.80	0.36	125.26	115.27	120.03	4.76	245.29	64.18
Uttarakhand		12.15		12.15	16.55	19.06	2.51	31.20	3.22
HP		10.15		10.15	11.73	14.12	2.39	24.27	0.70
J & K		10.33	0.00	10.33	18.38	22.50	4.12	32.83	0.00
Chandigarh				0.00	3.67	3.89	0.22	3.89	0.00
Total	**403.63**	**59.13**	**4.32**	**467.09**	**387.96**	**411.32**	**23.36**	**878.41**	**77.72**

* 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 (20:00 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	6147	0	-75	0	5103	0	61	25	6150
Haryana	6789	0	-52	242	5220	0	225	90	6789
Rajasthan	8331	0	218	-119	7836	360	420	-8	8680
Delhi	3641	0	-254	178	3011	0	-223	-79	3840
UP	10207	2045	0	937	10942	2465	250	2334	11111
Uttarakhand	1432	285	114	47	1246	0	101	370	1432
HP	1175	0	80	-470	836	0	84	-74	1232
J&K	1692	0	99	-149	999	0	139	-516	1765
Chandigarh	195	0	-27	0	127	0	-2	0	203
Total	**39609**	**2330**	**103**	**668**	**35321**	**2825**	**1057**	**2142**	**39609**

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

Diversity is 1.04

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	1370	1499	1494	35.92	1497	32.88	3.04
	Rihand I STPS (2*500)	1000	750	819	820	19.84	827	18.00	1.84
	Rihand II STPS (2*500)	1000	766	817	893	20.22	843	18.39	1.84
	Rihand III STPS (2*500)	1000	800	858	890	20.76	865	19.20	1.56
	Dadri I STPS (4*210)	840	603	546	563	14.19	591	14.10	0.09
	Dadri II STPS (2*490)	980	481	432	480	11.23	468	11.21	0.02
	Unchahar I TPS (2*210)	420	400	430	438	10.36	432	9.58	0.78
	Unchahar II TPS (2*210)	420	400	439	430	10.48	437	9.57	0.91
	Unchahar III TPS (1*220)	210	198	214	211	5.16	215	4.73	0.43
	ISTPP (Jhajjhar) (3*500)	1500	990	956	960	21.47	895	23.51	-2.04
	Dadri GPS (4*130.19+2*154.51)	830	785	194	199	4.65	194	4.74	-0.09
	Anta GPS (3*88.71+1*153.2)	419	390	0	0	0.00	0	0.00	0.00
	Auraiya GPS (4*111.19+2*109.30)	663	482	160	161	3.83	160	3.73	0.10
	Dadri Solar	5	1	0	0	0.02	1	0.03	0.00
	Unchahar Solar	10	3	0	0	0.04	2	0.07	-0.03
	Sub Total (A)	**11297**	**8419**	**7364**	**7539**	**178**	**7424**	**170**	**8**
B. NPC	NAPS (2*220)	440	280	320	322	6.73	281	6.72	0.01
	RAPS- B (2*220)	440	394	443	441	9.54	397	9.46	0.08
	RAPS- C (2*220)	440	185	204	203	4.30	179	4.44	-0.14
	Sub Total (B)	**1320**	**859**	**967**	**966**	**20.57**	**857**	**20.62**	**-0.04**
C. NHPC	Chamera I HPS (3*180)	540	534	541	0	4.10	171	4.00	0.10
	Chamera II HPS (3*100)	300	300	299	0	2.53	106	2.50	0.03
	Chamera III HPS (3*77)	231	229	222	0	1.69	70	1.65	0.04
	Bairasuil HPS(3*60)	180	120	120	0	1.05	44	0.98	0.07
	Salal-HPS (6*115)	690	334	340	341	8.50	354	8.02	0.48
	Tanakpur-HPS (3*40)	94	65	84	52	1.61	67	1.57	0.04
	Uri-I HPS (4*120)	480	431	453	454	11.11	463	10.35	0.76
	Uri-II HPS (4*60)	240	238	241	242	5.76	240	5.71	0.05
	Dhauliganga-HPS (4*70)	280	95	209	71	2.25	94	2.28	-0.03
	Dulhasti-HPS (3*130)	390	387	403	398	7.86	328	7.70	0.16
	Sewa-II HPS (3*40)	120	119	124	0	0.52	22	0.50	0.02
	Parbati 3 (4*130)	520	260	0	0	0.00	0	0.94	-0.94
	Sub Total (C)	**4065**	**3113**	**3036**	**1558**	**47**	**1957**	**46**	**1**
D.SJVNL	NJPC (6*250)	1500	1605	1599	416	14.62	609	14.51	0.11
	Rampur HEP (4*68.67)	275	157	292	118	3.57	149	3.80	-0.23
	Sub Total (D)	1775	1762	1891	534	18.19	758	18.31	-0.12
E. THDC	Tehri HPS (4*250)	1000	1060	966	0	5.46	228	5.40	0.06
	Koteshwar HPS (4*100)	400	91	100	91	1.76	73	1.75	0.01
	Sub Total (E)	**1400**	**1151**	**1066**	**91**	**7.22**	**301**	**7.15**	**0.07**
F. BBMB	Bhakra HPS (3*108+2*126+6*157)	1514	732	1248	543	17.56	732	17.58	-0.02
	Dehar HPS (6*165)	990	259	660	160	6.21	259	6.23	-0.02
	Pong HPS (6*66)	396	183	324	192	4.37	182	4.38	-0.01
	Sub Total (F)	**2900**	**1174**	**2232**	**895**	**28.14**	**1173**	**28.18**	**-0.04**
G. IPP(s)/JV(s)	ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	73	42	9.86	411	0.95	8.91
	KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	875	210	8.05	335	8.04	0.01
	Malana Stg-II HPS (2*50)	100	0	0	0	0.00	0	0.00	0.00
	Shree Cement TPS (2*150)	300	0	297	300	7.05	294	7.14	-0.09
	Budhil HPS(IPP)	70	0	26	0	0.39	16	0.38	0.00
	Sub Total (G)	1662	0	1271	552	25.34	1056	16.51	8.84
H. Total Regional Entities (A-G)		**24419**	**16479**	**17827**	**12135**	**324.61**	**13525**	**306.69**	**17.91**

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	320	420	9.14	381
	Guru Nanak Dev TPS(Bhatinda) (4*110)	440	80	80	1.67	70
	Guru Hargobind Singh TPS(L.mbt) (2*210+2*250)	920	384	412	9.01	375
	Goindwal(GVK)		0	0	0.00	0
	Rajpura (2*700)	1400	1384	1030	29.19	1216
	Talwandi Saboo (1*660)	660	590	470	12.08	503
	Thermal (Total)	**4680**	**2758**	**2412**	**61.09**	**2545**
	Total Hydro	1148	462	572	13.89	579
	Total Punjab	**5828**	**3220**	**2984**	**74.97**	**3124**
Haryana	Panipat TPS (4*110+2*210+2*250)	1367	650	598	14.04	585
	DCRTPP (Yamuna nagar) (2*300)	600	265	239	6.00	250
	Faridabad GPS (NTPC)	432	195	193	4.58	191
	RGTPP (khedar) (IPP) (2*600)	1200	1003	719	19.93	830
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP) (2*660)	1320	1144	739	25.31	1054
	Thermal (Total)	**4944**	**3257**	**2488**	**69.86**	**2911**
	Total Hydro	62	26	27	0.66	27
	Total Haryana	**5006**	**3283**	**2515**	**70.51**	**2938**
Rajasthan	kota TPS (2*110+2*195+3*210)	1240	794	867	19.82	826
	suratgarh TPS (6*250)	1500	1374	1372	32.53	1355
	Chabra TPS (3*250)	750	419	366	10.03	418
	Dholpur GPS (3*110)	330	114	109	2.79	116
	Ramgarh GPS (1*3 + 1*35.5 +2*37.5 +1*110 +1*50)	271	179	165	5.06	211
	RAPS A (NPC) (1*100+1*200)	300	180	180	4.38	183
	Barsingsar (NLC) (2*125)	250	100	101	2.15	90
	Giral LTPS (2*125)	250	0	0	0.00	0
	Rajwest LTPS (IPP) (8*135)	1080	628	554	14.93	622
	VS LIGNITE LTPS (IPP) (1*135)	135	0	0	0.00	0
	Kalisindh Thermal(1*600)	600	441	167	7.11	296
	Kawai(Adani) (2*660)	1320	1186	1182	28.79	1199
	Thermal (Total)	**8026**	**5415**	**5063**	**128**	**5316**
	Total Hydro	550	141	0	1.16	48
	Wind power	2798	202	101	3.05	127
	Biomass	99	29	29	0.69	29
	Solar	730	0	0	0.23	9
	Renewable/Others (Total)	3627	231	130	3.96	165
	Total Rajasthan	**12203**	**5787**	**5193**	**132.71**	**5530**
UP	Anpara TPS (3*210+2*500)	1630	848	883	21.00	875
	Obra TPS (2*50+2*94+5*200)	1194	499	370	10.50	438
	Paricha TPS (2*110+2*220+2*250)	1140	505	631	13.90	579
	Panki TPS (2*105)	210	144	113	3.00	125
	Harduaganj TPS (1*60+1*105+2*250)	665	448	440	10.50	438
	Tanda TPS (NTPC) (4*110)	440	274	267	6.40	267
	Roza TPS (IPP) (4*300)	1200	833	810	19.90	829
	Anpara-C (IPP) (2*600)	1200	855	852	20.40	850
	Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)	450	361	363	8.50	354
	Thermal (Total)	**8129**	**4767**	**4729**	**114.10**	**4754**
	Vishnuparyag HPS (IPP)	400	267	257	5.90	246
	Other Hydro	527	136	233	4.90	204
	Cogeneration	981	15	15	0.36	15
	Total UP	**10037**	**5185**	**5234**	**125.26**	**4973**
Uttarakhand	Total Hydro	1398	611	462	12.15	506
	Total Uttarakhand	**1398**	**611**	**462**	**12.15**	**506**
Delhi	Rajghat TPS (2*67.5)	135	0	0	0.00	0
	Delhi Gas Turbine (6x30 + 3x34)	282	115	112	2.69	112
	Pragati Gas Turbine (2x104+ 1x122)	330	264	291	6.66	277
	Rithala GPS (3*36)	95	0	0	0.00	0
	Bawana GPS (6*250)	1370	497	476	11.51	480
	Badarpur TPS (NTPC) (3*95+2*210)	705	415	440	10.14	422
	Thermal (Total)	2917	1291	1319	31.00	1292
	Total Delhi	**2917**	**1291**	**1319**	**31.00**	**1292**
HP	Baspa HPS (IPP) (2*150)	300	89	59	2.49	104
	Malana HPS (IPP) (2*43)	86	20	0	0.47	19
	Other Hydro	728	309	287	7.20	300
	Total HP	**1114**	**418**	**346**	**10.15**	**423**
J & K	Baglihar HPS (IPP) (3*150)	450	440	440	10.33	431
	Other Hydro/IPP	436	0	0	0.00	0
	Gas/Diesel/Others	209	0	0	0.00	0
	Total J & K	**1094**	**440**	**440**	**10.33**	431
Total State Control Area Generation		**39597**	**20235**	**18493**	**467.09**	**19216**
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			**2808**	**5753**	**112.18**	**4674**
Total Regional Availability(Gross)		**64017**	**40870**	**36381**	**903.88**	**37416**

IV. Total Hydro Generation:

Regional Entities Hydro	**11432**	**9174**	**3330**	**118.43**	**4935**
State Control Area Hydro	**5684**	**2234**	**2080**	**59.13**	**2218**
Total Regional Hydro	**17116**	**11408**	**5410**	**177.57**	**7153**

V(A). Inter Regional Exchange [Import (+ve)/Export (-ve)] [Linkwise]

Element	Peak(20:00 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	7.32	-7.32
Gwalior-Agra (D/C)	603	1527	1663	0	27.58	0.00	27.58
Zerda-Kankroli	-228	-109	0	296	0.00	4.12	-4.12
Zerda-Bhinmal	-197	-43	127	242	0.00	2.38	-2.38
Malanpur-Auraiya	-126	-99	0	166	0.00	2.33	-2.33
Badod-Kota/Morak	-130	-40	4	-152	0.00	1.90	-1.90
Mundra-Mohindergarh(HVDC)	1800	2001	2004	0	45.86	0.00	45.86
Vindhyachal - Rihand	507	492	507	0	11.88	0.00	11.88
Sub Total WR	**1929**	**3429**			**85.32**	**18.05**	**67.27**
Pusauli Bypass	400	400	400	0	9.69	0.00	9.69
MZP- GKP (D/C)	164	540	702	0	10.77	0.00	10.77
Patna-Balia(D/C)	269	576	713	0	11.58	0.00	11.58
B'Sharif-Balia (D/C)	42	246	343	0	4.95	0.00	4.95
Pusauli-Balia	-127	-62	0	141	0.00	1.88	-1.88
Gaya-Fatehpur (765 Kv)	0	376	453	0	2.50	0.00	2.50
Pusauli-Sahupuri	156	133	188	0	3.94	0.00	3.94
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-20	-35	0	36	0.00	0.75	-0.75
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	-5	150	308	45	4.13	0.00	4.13
Sub Total ER	**879**	**2324**			**47.54**	**2.63**	**44.91**
Total IR Exch	**2808**	**5753**			**132.87**	**20.69**	**112.18**

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
29.87	2.52	32.39	6.25	0.98	2.65	19.42	0.00	0.00

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
41.30	54.74	96.03	44.91	67.27	112.18	3.61	12.53	16.15

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	0.35	5.42	24.10	67.61	60.08	11.22	4.78	0.09	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)
50.21	6.02	49.67	9.11	49.96	0.10	0.09	50.20	49.84

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	06:03	407	01:34	0.0	0.0	0.0	0.0
Gorakhpur	400	415	06:03	390	10:27	0.0	0.0	0.0	0.0
Bareilly	400	418	18:03	400	01:48	0.0	0.0	0.0	0.0
Kanpur	400	417	22:01	404	11:37	0.0	0.0	0.0	0.0
Dadri	400	416	06:03	401	11:38	22.8	22.8	0.0	0.0
Ballabhgarh	400	420	06:03	406	11:34	0.0	0.0	0.0	0.0
Bawana	400	416	06:03	403	12:16	0.0	0.0	0.0	0.0
Bassi	400	421	04:01	403	07:15	0.0	0.0	0.2	0.0
Hissar	400	410	21:51	396	18:43	0.0	0.0	0.0	0.0
Moga	400	419	00:01	402	18:42	0.0	0.0	0.0	0.0
Abdullapur	400	420	23:55	396	18:41	0.0	0.0	0.0	0.0
Nalagarh	400	430	23:56	414	07:17	0.0	0.0	53.0	0.0
Kishenpur	400	422	02:34	404	18:42	0.0	0.0	7.9	0.0
Wagoora	400	413	03:29	386	18:51	0.0	7.1	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	773	05:03	744	11:35	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	789	00:00	757	18:45	0.0	0.0	0.0	0.0
Agra	765	784	05:01	761	13:49	0.0	0.0	0.0	0.0
Bhiwani	765	794	06:03	765	18:43	0.0	0.0	0.0	0.0
Unnao	765	770	21:53	748	10:26	0.0	0.0	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	509.15	1500.16	510.81	1590.18	310.49	508.85
Pong	426.72	384.05	415.86	705.67	422.13	990.81	93.22	264.34
Tehri	829.79	740.04	824.60	1099.48	825.00	1107.95	116.22	118.00
Koteshwar	612.50	598.50	609.11	4.21	610.10	4.69	118.00	117.00
Chamera-I	760.00	748.75	757.13	7.58	0.00	0.00	96.63	109.83
Rihand	268.22	252.98	854.90	336.80	856.90	371.10	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	511.87	6.18	518.76	2.85	133.06	266.69

*** NA: Not Available**

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

State	Off- Peak Hours (03:00 Hrs)			Peak Hours (20:00 Hrs)			Day Energy (MU)		
	Bilateral (MW)	IEX (MW)	PXIL (MW)	Bilateral (MW)	IEX (MW)	PXIL (MW)	Bilateral (MU)	IEX / PXIL (MU)	Total (MU)
Punjab	25	0	0	0	0	0	0.44	0.00	0.44
Delhi	-206	147	-20	23	176	-20	0.67	2.75	3.42
Haryana	79	11	0	231	11	0	4.15	0.31	4.46
HP	0	-74	0	0	-470	0	0.00	-4.14	-4.14
J&K	-248	-268	0	-130	-19	0	-3.92	-1.95	-5.87
CHD	0	0	0	0	0	0	0.00	0.07	0.07
Rajasthan	-18	10	0	-18	-101	0	-0.43	2.67	2.24
UP	368	1967	0	131	807	0	4.71	28.84	33.55
Uttarakhand	294	75	0	49	-2	0	3.11	3.15	6.26
Total	**294**	**1869**	**-20**	**286**	**402**	**-20**	**8.74**	**31.69**	**40.43**

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	25	0	0	0	0	0
Delhi	318	-206	387	-228	0	-20
Haryana	248	79	49	7	0	0
HP	0	0	154	-620	0	0
J&K	-130	-248	-14	-318	0	0
CHD	0	0	39	0	0	0
Rajasthan	-18	-18	777	-109	0	0
UP	384	121	1967	0	0	0
Uttarakhand	294	49	315	-2	0	0

XI. System Constraints:

XII. Grid Disturbance / Any Other Significant Event:

XIII. Weather Conditions For 11.10.2014 :

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 : 11.10.2014 **पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER**