पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)

उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 07.11.2014
Date of Reporting : 08.11.2014

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
36499	1602	38101	50.18	30226	1675	31901	49.99	778.4	61.95

* 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	33.10	6.41		39.51	53.91	55.41	1.50	94.91	0.35
Haryana	60.19	0.55		60.75	50.72	50.33	-0.38	111.08	0.07
Rajasthan	121.46	4.82	7.05	133.33	68.59	71.70	3.11	205.03	0.00
Delhi	23.58			23.58	39.87	39.78	-0.09	63.35	0.00
UP	119.30	1.90	2.40	123.60	83.14	83.24	0.10	206.84	59.55
Uttarakhand		8.97		8.97	20.59	24.33	3.74	33.29	1.98
HP		6.88		6.88	16.53	17.74	1.21	24.62	0.00
J & K		7.66	0.00	7.66	27.37	28.12	0.75	35.78	0.00
Chandigarh				0.00	3.17	3.45	0.28	3.45	0.00
Total	**357.63**	**37.19**	**9.45**	**404.27**	**363.88**	**374.10**	**10.21**	**778.37**	**61.95**

* 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	4457	0	-7	49	3552	0	-4	-125	4501
Haryana	6143	7	163	-724	4090	0	109	-753	6143
Rajasthan	8469	0	-128	484	8283	0	20	912	9329
Delhi	3452	0	-18	-551	1933	0	-152	-819	3452
UP	9051	1490	-657	149	9058	1675	364	92	9945
Uttarakhand	1717	105	163	418	1195	0	109	422	1717
HP	1244	0	71	21	765	0	52	300	1327
J&K	1777	0	-96	349	1256	0	-39	297	1857
Chandigarh	190	0	-7	0	94	0	22	-30	190
Total	**36499**	**1602**	**-517**	**196**	**30226**	**1675**	**480**	**295**	**36499**

* 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	1262	1123	1652	32.50	1354	30.27	2.23
	Rihand I STPS (2*500)	1000	880	930	865	22.02	917	20.30	1.71
	Rihand II STPS (2*500)	1000	970	1043	919	23.96	999	22.28	1.69
	Rihand III STPS (2*500)	1000	470	503	513	12.21	509	11.24	0.97
	Dadri I STPS (4*210)	840	815	706	636	0.00	0	16.39	-16.39
	Dadri II STPS (2*490)	980	980	793	702	0.00	0	20.68	-20.68
	Unchahar I TPS (2*210)	420	305	397	314	0.00	0	7.24	-7.24
	Unchahar II TPS (2*210)	420	160	197	169	0.00	0	3.74	-3.74
	Unchahar III TPS (1*220)	210	160	207	167	0.00	0	3.71	-3.71
	ISTPP (Jhajjhar) (3*500)	1500	1500	1133	888	22.28	928	23.89	-1.61
	Dadri GPS (4*130.19+2*154.51)	830	805	169	197	0.00	0	4.60	-4.60
	Anta GPS (3*88.71+1*153.2)	419	403	236	269	0.00	0	6.11	-6.11
	Auraiya GPS (4*111.19+2*109.30)	663	648	160	324	0.00	0	5.75	-5.75
	Dadri Solar	5	1	0	0	0.00	0	0.03	-0.03
	Unchahar Solar	10	3	0	0	0.00	0	0.07	-0.07
	Sub Total (A)	**11297**	**9361**	**7597**	**7615**	**113**	**4707**	**176**	**-63**
B. NPC	NAPS (2*220)	440	286	319	329	6.85	285	6.86	-0.02
	RAPS- B (2*220)	440	402	444	450	9.65	402	9.65	0.00
	RAPS- C (2*220)	440	391	440	442	9.58	399	9.38	0.20
	Sub Total (B)	**1320**	**1079**	**1203**	**1221**	**26.08**	**1086**	**25.90**	**0.18**
C. NHPC	Chamera I HPS (3*180)	540	534	523	0	1.66	69	1.60	0.06
	Chamera II HPS (3*100)	300	300	302	0	1.76	73	1.70	0.06
	Chamera III HPS (3*77)	231	231	224	0	1.09	45	1.05	0.04
	Bairasuil HPS(3*60)	180	178	180	0	0.72	30	0.69	0.03
	Salal-HPS (6*115)	690	143	67	147	3.62	151	3.44	0.18
	Tanakpur-HPS (3*40)	94	42	50	49	1.07	44	1.02	0.05
	Uri-I HPS (4*120)	480	225	258	239	6.00	250	5.40	0.60
	Uri-II HPS (4*60)	240	152	174	132	3.80	158	3.65	0.15
	Dhauliganga-HPS (4*70)	280	207	208	11	1.38	58	1.27	0.12
	Dulhasti-HPS (3*130)	390	387	396	226	4.67	195	4.40	0.27
	Sewa-II HPS (3*40)	120	119	114	0	0.37	16	0.38	0.00
	Parbati 3 (4*130)	520	260	256	0	0.56	23	0.55	0.01
	Sub Total (C)	**4065**	**2779**	**2752**	**803**	**27**	**1113**	**25**	**2**
D.SJVNL	NJPC (6*250)	1500	1605	1605	0	10.49	437	10.34	0.15
	Rampur HEP (4*68.67)	275	330	299	0	2.51	104	2.56	-0.05
	Sub Total (D)	1775	1935	1904	0	13.00	542	12.90	0.10
E. THDC	Tehri HPS (4*250)	1000	1060	1060	0	5.73	239	5.64	0.09
	Koteshwar HPS (4*100)	400	91	90	0	1.79	75	1.75	0.04
	Sub Total (E)	**1400**	**1151**	**1150**	**0**	**7.52**	**313**	**7.39**	**0.13**
F. BBMB	Bhakra HPS (3*108+2*126+6*157)	1514	570	1093	429	14.15	589	13.67	0.47
	Dehar HPS (6*165)	990	159	495	0	4.24	177	3.82	0.42
	Pong HPS (6*66)	396	280	384	186	6.65	277	6.72	-0.07
	Sub Total (F)	**2900**	**1009**	**1972**	**615**	**25.03**	**1043**	**24.21**	**0.82**
G. IPP(s)/JV(s)	ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	68	0	0.70	29	0.69	0.01
	KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	875	0	5.64	235	5.65	-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	137	104	2.90	121	2.84	0.06
	Budhil HPS(IPP)	70	0	70	0	0.16	7	0.21	-0.05
	Sub Total (G)	1662	0	1150	104	9.40	392	9.39	0.01
H. Total Regional Entities (A-G)		**24419**	**17315**	**17728**	**10358**	**220.70**	**9196**	**281.24**	**-60.55**

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	4.19	175
	Guru Nanak Dev TPS(Bhatinda) (4*110)	440	80	80	2.14	89
	Guru Hargobind Singh TPS(L.mbt) (2*210+2*250)	920	365	461	9.61	401
	Goindwal(GVK)		0	0	0.00	0
	Rajpura (2*700)	1400	701	714	17.16	715
	Talwandi Saboo (1*660)	660	0	0	0.00	0
	Thermal (Total)	**4680**	**1306**	**1415**	**33.10**	**1379**
	Total Hydro	1148	261	261	6.41	267
	Total Punjab	**5828**	**1567**	**1676**	**39.51**	**1646**
Haryana	Panipat TPS (4*110+2*210+2*250)	1367	423	428	9.82	409
	DCRTPP (Yamuna nagar) (2*300)	600	253	243	5.71	238
	Faridabad GPS (NTPC)	432	0	0	0.04	2
	RGTPP (khedar) (IPP) (2*600)	1200	1021	718	18.67	778
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP) (2*660)	1320	1234	741	25.95	1081
	Thermal (Total)	**4944**	**2931**	**2130**	**60.19**	**2508**
	Total Hydro	62	16	20	0.55	23
	Total Haryana	**5006**	**2947**	**2150**	**60.75**	**2531**
Rajasthan	kota TPS (2*110+2*195+3*210)	1240	831	818	19.90	829
	suratgarh TPS (6*250)	1500	1035	1049	25.21	1050
	Chabra TPS (3*250)	750	445	442	10.70	446
	Dholpur GPS (3*110)	330	100	118	2.77	115
	Ramgarh GPS (1*3 + 1*35.5 +2*37.5 +1*110 +1*50)	271	88	135	2.59	108
	RAPS A (NPC) (1*100+1*200)	300	186	170	4.37	182
	Barsingsar (NLC) (2*125)	250	170	184	4.43	185
	Giral LTPS (2*125)	250	70	75	1.50	62
	Rajwest LTPS (IPP) (8*135)	1080	721	720	18.02	751
	VS LIGNITE LTPS (IPP) (1*135)	135	0	0	0.00	0
	Kalisindh Thermal(1*600)	600	269	0	4.25	177
	Kawai(Adani) (2*660)	1320	1180	1173	27.72	1155
	Thermal (Total)	**8026**	**5095**	**4884**	**121**	**5061**
	Total Hydro	550	229	110	4.82	201
	Wind power	2798	93	583	6.08	253
	Biomass	99	34	34	0.81	34
	Solar	730	2	0	0.16	7
	Renewable/Others (Total)	3627	129	617	7.05	294
	Total Rajasthan	**12203**	**5453**	**5611**	**133.33**	**5556**
UP	Anpara TPS (3*210+2*500)	1630	939	942	22.80	950
	Obra TPS (2*50+2*94+5*200)	1194	189	295	5.90	246
	Paricha TPS (2*110+2*220+2*250)	1140	730	831	18.60	775
	Panki TPS (2*105)	210	149	144	3.40	142
	Harduaganj TPS (1*60+1*105+2*250)	665	460	464	11.10	463
	Tanda TPS (NTPC) (4*110)	440	276	272	6.80	283
	Roza TPS (IPP) (4*300)	1200	765	802	18.50	771
	Anpara-C (IPP) (2*600)	1200	977	988	23.70	988
	Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)	450	361	361	8.50	354
	Thermal (Total)	**8129**	**4846**	**5099**	**119.30**	**4971**
	Vishnuparyag HPS (IPP)	400	128	129	0.00	0
	Other Hydro	527	140	38	1.90	79
	Cogeneration	981	100	100	2.40	100
	Total UP	**10037**	**5214**	**5366**	**123.60**	**5150**
Uttarakhand	Total Hydro	1398	536	242	8.97	374
	Total Uttarakhand	**1398**	**536**	**242**	**8.97**	**374**
Delhi	Rajghat TPS (2*67.5)	135	0	0	0.00	0
	Delhi Gas Turbine (6x30 + 3x34)	282	77	78	1.83	76
	Pragati Gas Turbine (2x104+ 1x122)	330	264	262	6.39	266
	Rithala GPS (3*36)	95	0	0	0.00	0
	Bawana GPS (6*250)	1370	296	295	7.01	292
	Badarpur TPS (NTPC) (3*95+2*210)	705	325	332	8.34	348
	Thermal (Total)	2917	962	967	23.58	982
	Total Delhi	**2917**	**962**	**967**	**23.58**	**982**
HP	Baspa HPS (IPP) (2*150)	300	30	0	1.56	65
	Malana HPS (IPP) (2*43)	86	20	0	0.36	15
	Other Hydro	728	283	134	4.97	207
	Total HP	**1114**	**333**	**134**	**6.88**	**287**
J & K	Baglihar HPS (IPP) (3*150)	450	216	216	5.14	214
	Other Hydro/IPP	436	105	105	2.52	105
	Gas/Diesel/Others	209	0	0	0.00	0
	Total J & K	**1094**	**321**	**321**	**7.66**	319
Total State Control Area Generation		**39597**	**17333**	**16467**	**404.27**	**16845**
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			**3866**	**4809**	**109.57**	**4565**
Total Regional Availability(Gross)		**64017**	**38927**	**31634**	**734.53**	**30606**

IV. Total Hydro Generation:

Regional Entities Hydro	**11432**	**8722**	**1418**	**78.59**	**3274**
State Control Area Hydro	**5684**	**1836**	**1126**	**37.19**	**1550**
Total Regional Hydro	**17116**	**10558**	**2544**	**115.78**	**4824**

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	-400	-400	0	400	0.00	9.66	-9.66
Gwalior-Agra (D/C)	1074	1592	1940	0	33.85	0.00	33.85
Zerda-Kankroli	-111	-185	12	232	0.00	2.80	-2.80
Zerda-Bhinmal	135	-120	87	216	0.00	2.39	-2.39
Malanpur-Auraiya	-80	-148	0	-160	0.00	2.82	-2.82
Badod-Kota/Morak	-106	-162	0	127	0.00	3.93	-3.93
Mundra-Mohindergarh(HVDC)	2198	2197	2204	0	53.19	0.00	53.19
Vindhyachal - Rihand	483	512	512	0	10.86	0.00	10.86
Sub Total WR	**3193**	**3286**			**97.90**	**21.60**	**76.30**
Pusauli Bypass	200	200	200	0	4.82	0.00	4.82
MZP- GKP (D/C)	68	330	484	0	6.60	0.00	6.60
Patna-Balia(D/C)	148	356	462	0	7.72	0.00	7.72
B'Sharif-Balia (D/C)	42	200	292	22	4.10	0.00	4.10
Pusauli-Balia	-73	-40	0	79	0.00	1.07	-1.07
Gaya-Fatehpur (765 Kv)	175	297	303	0	2.89	0.00	2.89
Pusauli-Sahupuri	91	96	144	0	2.48	0.00	2.48
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-33	-46	0	-50	0.00	-0.94	0.94
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	55	130	377	0	4.79	0.00	4.79
Sub Total ER	**673**	**1523**			**33.40**	**0.13**	**33.27**
Total IR Exch	**3866**	**4809**			**131.30**	**21.74**	**109.57**

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
25.87	1.10	26.97	5.41	-12.94	4.52	8.19	0.94	-0.94

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
37.83	61.46	99.29	33.27	76.30	109.57	-4.56	14.84	10.28

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	1.83	9.06	31.86	61.69	46.57	11.98	8.66	0.95	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)
50.27	21.57	49.64	6.21	49.96	0.15	0.11	50.29	0.00

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	414	13:01	409	06:40	0.0	0.0	0.0	0.0
Gorakhpur	400	232	01:48	225	05:23	100.0	100.0	0.0	0.0
Bareilly	400	421	20:43	404	16:44	0.0	0.0	0.5	0.0
Kanpur	400	421	04:04	407	06:39	0.0	0.0	0.3	0.0
Dadri	400	419	04:01	410	22:13	0.0	0.0	0.0	0.0
Ballabhgarh	400	428	04:04	410	09:18	0.0	0.0	28.5	0.0
Bawana	400	425	04:02	409	18:24	0.0	0.0	19.8	0.0
Bassi	400	426	20:42	392	09:26	0.0	0.0	8.8	0.0
Hissar	400	418	04:02	400	09:26	0.0	0.0	0.0	0.0
Moga	400	425	04:01	406	18:10	0.0	0.0	14.9	0.0
Abdullapur	400	425	20:33	396	18:32	0.0	0.0	9.9	0.0
Nalagarh	400	433	04:04	411	11:19	0.0	0.0	39.8	1.3
Kishenpur	400	428	01:49	398	18:22	0.0	0.0	25.0	0.0
Wagoora	400	412	23:55	380	18:37	0.0	37.4	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	783	13:23	747	09:21	0.0	0.0	0.0	0.0
Balia	765	770	16:04	752	05:53	0.0	0.0	0.0	0.0
Moga	765	805	04:02	770	18:25	0.0	0.0	1.2	0.0
Agra	765	792	04:04	759	09:29	0.0	0.0	0.0	0.0
Bhiwani	765	806	04:02	775	09:26	0.0	0.0	3.3	0.0
Unnao	765	770	13:03	750	06:46	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	506.29	1367.40	510.38	1560.04	148.52	413.03
Pong	426.72	384.05	412.77	588.94	419.37	861.93	76.17	418.81
Tehri	829.79	740.04	822.85	1062.00	823.55	1066.00	86.90	125.00
Koteshwar	612.50	598.50	609.00	4.09	611.60	5.46	125.00	119.00
Chamera-I	760.00	748.75	759.34	0.00	0.00	0.00	63.24	44.77
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	0.00	0.00	0.00	0.00	0.00	0.00

*** 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	-239	114	0	-213	263	0	-5.32	3.71	-1.62
Delhi	-779	-30	-10	-600	58	-10	-14.47	0.02	-14.45
Haryana	-883	130	0	-865	142	0	-22.93	2.71	-20.22
HP	325	-25	0	300	-280	0	7.41	-2.96	4.44
J&K	297	0	0	349	0	0	7.02	-0.05	6.97
CHD	-30	0	0	0	0	0	-0.24	0.13	-0.11
Rajasthan	491	419	2	491	-8	2	11.78	9.60	21.38
UP	92	0	0	149	0	0	2.91	0.00	2.91
Uttarakhand	294	128	0	294	125	0	7.05	3.15	10.19
Total	**-432**	**735**	**-8**	**-96**	**299**	**-8**	**-6.81**	**16.31**	**9.49**

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	-213	-239	340	9	0	0
Delhi	-498	-779	112	-112	-9	-10
Haryana	-865	-1051	144	3	0	0
HP	325	300	42	-616	0	0
J&K	366	251	0	-10	0	0
CHD	0	-30	20	-6	0	0
Rajasthan	491	491	815	-256	2	1
UP	158	86	0	0	0	0
Uttarakhand	294	294	278	16	0	0

XI. System Constraints:

XII. Grid Disturbance / Any Other Significant Event:

XIII. Weather Conditions For 07.11.2014 :

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 : 07.11.2014 **पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER**