पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)

उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 20.11.2013
Date of Reporting : 21.11.2013

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
33414	2197	35611	50.10	26415	750	27165	50.00	719.7	48.85

* 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	45.19	10.29		55.48	32.77	34.67	1.90	90.15	1.91
Haryana	63.56	0.67		64.23	34.80	35.66	0.86	99.89	0.00
Rajasthan	101.41	5.77	2.35	109.52	71.23	67.50	-3.73	177.02	0.00
Delhi	15.74			15.74	41.76	41.97	0.21	57.71	0.00
UP	124.56	3.52	1.20	129.28	71.79	70.27	-1.52	199.55	42.82
Uttarakhand		8.76		8.76	18.95	21.20	2.25	29.96	2.52
HP		6.82		6.82	16.97	17.47	0.50	24.29	0.00
J & K		6.72	0.00	6.72	27.07	31.14	4.07	37.87	1.60
Chandigarh				0.00	3.09	3.30	0.20	3.30	0.00
Total	**350.46**	**42.55**	**3.55**	**396.56**	**318.43**	**323.18**	**4.75**	**719.74**	**48.85**

*** 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				Day Energy MU
	Demand Met	Shortage	UI	STOA/PX transactior	Demand Met	Shortage	UI	STOA/PX transaction	STOA/PX transaction
Punjab	4384	0	-63	-400	3063	0	128	-326	-10.02
Haryana	5105	0	40	-967	3660	0	136	-995	-25.53
Rajasthan	7692	0	-437	617	6670	0	-9	1037	33.46
Delhi	3065	2	64	-755	1447	0	-62	-1317	-22.49
UP	8494	2020	-483	-237	8156	750	-137	-256	-7.19
Uttarakhand	1564	75	123	393	1052	0	59	373	8.91
HP	1220	0	33	4	802	0	19	246	4.55
J&K	1709	100	36	368	1480	0	96	385	7.15
Chandigarh	182	0	14	0	86	0	-7	-5	0.00
Total	**33414**	**2197**	**-675**	**-976**	**26415**	**750**	**223**	**-858**	**-11.17**

* STOA figures are at sellers boundary & PX figures are at regional boundary.

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	2000	1945	2087	2091	47.25	1969	46.68	0.57
	Rihand I STPS	1000	867	987	826	20.37	849	20.10	0.27
	Rihand II STPS	1000	910	1039	906	21.65	902	21.06	0.59
	Rihand III STPS	1000	81	0	300	1.17	49	1.95	-0.78
	Dadri I STPS	840	814	651	466	12.56	523	13.31	-0.76
	Dadri II STPS	980	985	990	739	21.77	907	21.71	0.05
	Unchahar I TPS	420	405	438	381	9.38	391	9.37	0.01
	Unchahar II TPS	420	401	441	354	9.00	375	8.95	0.05
	Unchahar III TPS	210	201	218	171	4.53	189	4.52	0.01
	ISTPP (Jhajjhar)	1500	1480	656	644	15.18	633	15.27	-0.09
	Dadri GPS	830	818	401	506	10.05	419	10.18	-0.13
	Anta GPS	419	415	266	239	6.34	264	6.29	0.05
	Auraiya GPS	663	493	155	160	3.61	150	3.77	-0.16
	Sub Total (A)	**11282**	**9815**	**8329**	**7783**	**182.85**	**7619**	**183.16**	**-0.31**
B. NPC	NAPS	440	317	353	352	7.60	317	7.61	-0.01
	RAPS- B	440	419	460	462	10.04	418	10.06	-0.02
	RAPS- C	440	430	478	478	10.18	424	10.32	-0.14
	Sub Total (B)	**1320**	**1166**	**1291**	**1292**	**27.81**	**1159**	**27.98**	**-0.17**
C. NHPC	Chamera I HPS	540	541	360	0	2.02	84	1.90	0.12
	Chamera II HPS	300	300	228	0	1.82	76	1.60	0.22
	Chamera III HPS	231	231	156	0	0.96	40	0.85	0.11
	Bairasuil HPS	180	182	120	0	0.67	28	0.61	0.06
	Salal-HPS	690	127	115	198	3.20	133	3.00	0.20
	Tanakpur-HPS	94	38	56	40	0.95	40	0.90	0.05
	Uri-HPS	480	122	213	43	3.03	126	2.88	0.15
	Uri-II HPS	120	19	121	61	1.80	75	0.45	1.35
	Dhauliganga-HPS	280	0	0	0	0.00	0	0.00	0.00
	Dulhasti-HPS	390	387	238	0	3.59	149	3.36	0.22
	Sewa-II HPS	120	119	90	0	0.42	18	0.40	0.02
	Sub Total (C)	**3425**	**2065**	**1697**	**342**	**18.46**	**769**	**15.96**	**2.50**
D.NJPC	Nathpa Jhakri	1500	1605	1613	0	9.70	404	9.20	0.50
	Sub Total (D)	1500	1605	1613	0	9.70	404	9.20	0.50
E. THDC	Tehri HPS	1000	1060	751	0	6.33	264	6.20	0.13
	Koteshwar HPS	400	92	100	90	2.24	93	2.20	0.04
	Sub Total (E)	**1400**	**1152**	**851**	**90**	**8.57**	**357**	**8.40**	**0.17**
F. BBMB	Bhakra HPS	1497	571	1101	368	14.29	595	13.69	0.60
	Dehar HPS	990	147	330	0	3.65	152	3.54	0.12
	Pong HPS	396	261	306	186	5.76	240	6.27	-0.51
	Sub Total (F)	**2883**	**979**	**1737**	**554**	**23.70**	**988**	**23.50**	**0.20**
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	72	0	0.65	27	0.62	0.03
	KWHEP HPS(IPP)	1000	0	367	0	5.38	224	5.29	0.10
	Malana Stg-II HPS	100	0	0	0	0.00	0	0.00	0.00
	Shree Cement TPS	300	0	0	0	0.00	0	0.00	0.00
	Budhil HPS(IPP)	70	0	0	0	0.00	0	0.00	0.00
	Sub Total (G)	1662	0	439	0	6.03	251	5.91	0.12
H. Total Regional Entities (A-G)		**23472**	**16783**	**15957**	**10061**	**277.13**	**11547**	**274.12**	**3.01**

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)	1260	950	830	21.12	880
	Guru Nanak Dev TPS(Bhatinda)	440	170	170	4.37	182
	Guru Hargobind Singh TPS(L.mbt)	920	967	748	19.70	821
	Goindwal(GVK)		0	0	0.00	0
	Thermal (Total)	2620	2087	1748	45.19	1883
	Total Hydro	1148	417	417	10.29	429
	Total Punjab	**3768**	**2504**	**2165**	**55.48**	**2312**
Haryana	Panipat TPS	1367	423	435	10.30	429
	DCRTPP (Yamuna nagar)	600	280	505	8.94	373
	Faridabad GPS (NTPC)	432	350	283	8.56	357
	RGTPP (khedar) (IPP)	1200	561	374	11.40	475
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	1114	744	24.36	1015
	Thermal (Total)	4944	2728	2341	63.56	2648
	Total Hydro	62	26	29	0.67	28
	Total Haryana	**5006**	**2754**	**2370**	**64.23**	**2676**
Rajasthan	kota TPS	1240	1154	1123	27.30	1137
	suratgarh TPS	1500	1125	1022	26.23	1093
	Chabra TPS	500	450	453	9.72	405
	Dholpur GPS	330	103	101	2.53	105
	Ramgarh GPS	111	164	162	3.69	154
	RAPS A (NPC)	300	175	175	3.99	166
	Barsingsar (NLC)	250	168	59	2.70	112
	Giral LTPS	250	0	0	0.00	0
	Rajwest LTPS (IPP)	1080	486	399	11.27	470
	VSLP LTPS (IPP)	135	0	0	0.00	0
	Kalisindh Thermal	600	0	0	0.00	0
	Kawai(Adani)	660	618	488	13.99	583
	Thermal (Total)	6956	4443	3982	101.41	4225
	Total Hydro	550	197	212	5.77	240
	Wind power	2191	19	40	1.04	43
	Biomass	91	23	23	0.54	23
	Solar	201	0	0	0.77	32
	Renewable/Others (Total)	2483	42	63	2.35	98
	Total Rajasthan	**9989**	**4682**	**4257**	**109.52**	**4563**
UP	Anpara TPS	1630	1400	1418	30.20	1258
	Obra TPS	1288	379	337	7.90	329
	Paricha TPS	1140	707	716	15.40	642
	Panki TPS	210	80	80	1.60	67
	Harduaganj TPS	665	498	489	10.30	429
	Tanda TPS (NTPC)	440	401	394	9.75	406
	Roza TPS (IPP)	1200	848	828	23.29	970
	Anpara-C (IPP)	1200	829	813	19.35	806
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	256	257	6.77	282
	Thermal (Total)	8223	5398	5332	124.56	5190
	Vishnuparyag HPS (IPP)	400	0	0	0.00	0
	Other Hydro	527	160	171	3.52	147
	Cogeneration	981	50	50	1.20	50
	Total UP	**10131**	**5608**	**5553**	**129.28**	**5387**
Uttarakhand	Total Hydro	1303	478	224	8.76	365
	Total Uttarakhand	**1303**	**478**	**224**	**8.76**	**365**
Delhi	Rajghat TPS	135	0	0	0.00	0
	Delhi Gas Turbine	282	83	82	1.91	80
	Pragati Gas Turbine	330	313	266	7.17	299
	Rithala GPS	95	0	0	0.00	0
	Bawana GPS	686	0	0	0.00	0
	Badarpur TPS (NTPC)	705	305	260	6.67	278
	Thermal (Total)	2232	701	608	15.74	656
	Total Delhi	**2232**	**701**	**608**	**15.74**	**656**
HP	Baspa HPS (IPP)	330	31	31	1.83	76
	Malana HPS (IPP)	86	14	12	0.37	15
	Other Hydro	589	244	161	4.62	193
	Total HP	**1005**	**289**	**204**	**6.82**	**284**
J & K	Baglihar HPS (IPP)	450	294	126	4.14	173
	Other Hydro	323	90	115	2.58	107
	Gas/Diesel/Others	183	0	0	0.00	0
	Total J & K	**956**	**384**	**241**	**6.72**	280
Total State Control Area Generation		**34390**	**17400**	**15622**	**396.56**	**16523**
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			**2675**	**2278**	**69.53**	**2897**
Total Regional Availability(Gross)		**57862**	**36032**	**27961**	**743.22**	**30968**

IV. Total Hydro Generation:

Regional Entities Hydro	**10500**	**6337**	**986**	**66.46**	**2769**
State Control Area Hydro	**5368**	**1951**	**1498**	**42.55**	**1773**
Total Regional Hydro	**15868**	**8288**	**2484**	**109.02**	**4542**

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	-100	-500	0	500	0.00	7.69	-7.69
Gwalior-Agra (D/C)	266	377	1090	0	9.58	0.00	9.58
Zerda-Kankroli	-276	-303	0	390	0.00	6.02	-6.02
Zerda-Bhinmal	-183	-186	79	308	0.00	3.38	-3.38
Malanpur-Auraiya	-123	-145	0	150	0.00	3.45	-3.45
Badod-Kota/Morak	-140	-168	0	157	0.00	3.09	-3.09
Mundra-Mohindergarh(HVDC)	1502	1498	1504	0	35.56	0.00	35.56
Sub Total WR	**946**	**573**			**45.14**	**23.63**	**21.51**
Pusauli Bypass	300	300	300	0	7.23	0.00	7.23
MZP- GKP (D/C)	279	434	798	0	11.45	0.00	11.45
Patna-Balia(D/C)	602	469	826	0	13.95	0.00	13.95
B'Sharif-Balia (D/C)	352	253	585	0	8.48	0.00	8.48
Pusauli-Balia	-68	-42	80	121	0.00	0.47	-0.47
Gaya-Fatehpur (765 Kv)	158	199	383	0	5.18	0.00	5.18
Pusauli-Sahupuri	140	121	149	0	3.15	0.00	3.15
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-34	-29	0	38	0.00	0.94	-0.94
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	0	0	0		0.00	0.00	0.00
Sub Total ER	**1729**	**1705**			**49.44**	**1.41**	**48.03**
Total IR Exch	**2675**	**2278**			**94.57**	**25.04**	**69.53**

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
38.68	0.95	39.63	5.23	-29.25	11.28	-1.27	2.95	-2.95

Total IR Schedule (MU)			Total IR Actual (MU)			Net IR UI (MU)		
Through ER	Through WR Inclds Mndra	Total	Through ER	Through WR	Total	Through ER	Through WR	Total
59.10	2.40	61.50	48.03	21.51	69.53	-11.07	19.11	8.04

VI. Frequency Profile <---------- % of Time Frequency ---------->

<48.80	<49.0	<49.20	<49.50	<49.7	49.5 - 50.2	49.7-49.8	49.7 - 50.2	> 50.00	> 50.2
0.00	0.00	0.00	0.00	2.50	98.40	10.30	95.90	28.90	1.60

<---------- 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	16.04	49.57	6.59	49.94	0.19	0.12	50.13	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	406	12:57	403	09:43	0.0	0.0	0.0	0.0
Gorakhpur	400	425	14:10	405	12:35	0.0	0.0	0.0	0.0
Bareilly	400	413	14:35	402	12:09	0.0	0.0	0.0	0.0
Kanpur	400	415	13:31	407	10:06	0.0	0.0	0.0	0.0
Dadri	400	414	13:26	405	11:32	0.0	0.0	0.0	0.0
Ballabhgarh	400	421	13:24	411	10:13	0.0	0.0	3.3	0.0
Bawana	400	417	13:27	407	12:10	0.0	0.0	0.0	0.0
Bassi	400	414	13:28	397	10:06	0.0	0.0	0.0	0.0
Hissar	400	407	13:06	396	12:39	0.0	0.0	0.0	0.0
Moga	400	416	13:24	403	12:37	0.0	0.0	0.0	0.0
Abdullapur	400	415	13:18	405	11:37	0.0	0.0	0.0	0.0
Nalagarh	400	418	13:26	405	11:21	0.0	0.0	0.0	0.0
Kishenpur	400	419	13:26	402	10:06	0.0	0.0	0.0	0.0
Wagoora	400	415	13:26	400	12:58	0.0	0.0	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	762	14:06	736	10:06	0.0	26.6	0.0	0.0
Balia	765	748	14:04	728	12:13	0.0	66.3	0.0	0.0
Moga	765	780	13:26	755	12:39	0.0	0.0	0.0	0.0
Agra	765	796	13:28	773	10:06	0.0	0.0	0.0	0.0
Bhiwani	765	784	13:27	764	12:12	0.0	0.0	0.0	0.0
Unnao	765	752	14:34	735	10:07	0.0	56.2	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	509.42	1515.08	502.38	1192.70	241.46	417.79
Pong	426.72	384.05	418.46	821.32	417.48	781.19	77.73	312.79
Tehri	829.79	740.04	822.25	1050.00	818.65	982.26	79.47	137.00
Koteshwar	612.50	598.50	610.50	4.50	NA	NA	137.00	148.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	58.37	63.65
Rihand	268.22	252.98	261.82	407.50	262.98	478.20	NA	NA
RPS	352.80	343.81	352.88	NA	NA	NA	243.01	12.15
Jawahar Sagar	298.70	295.78	298.61	NA	NA	NA	253.41	163.81
RSD	527.91	487.91	516.48	144.00	520.95	144.00	86.28	222.34

*** NA: Not Available**

X. System Constraints:

XI. Grid Disturbance / Any Other Significant Event:

XII. Weather Conditions For 20.11.2013 :
1. Normal weather in NR.

XIII. Synchronisation of new generating units :
0.00

XIV. Synchronisation of new 220 / 400 / 765 KV lines and energising of bus / /substation :

XV. Tripping of lines in pooling stations :

XVI. Complete generation loss in a generating station :
Vishnuprayag (400MW) and Dhauliganga (280MW) are out of operation since 16.06.2013.
Civil construction is in progress for rectification of the major damages in Plants/Dam caused due to flood
Vishnuprayag and Dhauliganga expected by Mar, 2014 .

Report for : 20.11.2013 **पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER**