पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)

उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 14.12.2013
Date of Reporting : 15.12.2013

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
36680	1944	38624	50.20	28761	0	28761	50.17	775.2	45.21

* 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	39.90	10.92		50.81	44.20	47.50	3.30	98.31	0.00
Haryana	64.33	0.42		64.75	42.01	42.59	0.58	107.34	0.19
Rajasthan	99.76	5.04	8.85	113.64	82.23	78.15	-4.08	191.79	0.00
Delhi	15.28			15.28	42.06	41.89	-0.17	57.17	0.04
UP	122.88	3.54	11.30	137.72	85.40	84.04	-1.35	221.76	40.89
Uttarakhand		10.55		10.55	19.19	19.59	0.40	30.14	2.40
HP		5.31		5.31	18.53	19.41	0.88	24.71	0.00
J & K		6.84	0.00	6.84	30.46	33.72	3.27	40.56	1.70
Chandigarh				0.00	3.11	3.38	0.27	3.38	0.00
Total	**342.15**	**42.60**	**20.15**	**404.89**	**367.18**	**370.27**	**3.09**	**775.17**	**45.21**

*** 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	4929	0	81	-282	3096	0	165	-310	-3.93
Haryana	5625	0	-25	-718	3927	0	199	-754	-20.96
Rajasthan	8435	0	-81	919	7199	0	-5	876	37.41
Delhi	3040	0	145	-743	1367	0	-6	-1333	-22.75
UP	9826	1769	-126	166	9534	0	-175	1052	5.78
Uttarakhand	1603	75	-13	420	1138	0	40	369	8.78
HP	1214	0	98	172	780	0	24	320	6.42
J&K	1827	100	18	648	1632	0	124	510	10.09
Chandigarh	181	0	3	0	88	0	8	-20	-0.20
Total	**36680**	**1944**	**100**	**582**	**28761**	**0**	**374**	**710**	**20.63**

* 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	2089	2029	46.45	1935	46.35	0.10
	Rihand I STPS	1000	841	927	778	19.51	813	19.53	-0.02
	Rihand II STPS	1000	930	1045	798	21.77	907	21.63	0.14
	Rihand III STPS	1000	460	525	490	10.97	457	11.03	-0.07
	Dadri I STPS	840	815	655	480	13.22	551	13.46	-0.24
	Dadri II STPS	980	985	980	720	21.16	882	21.48	-0.32
	Unchahar I TPS	420	239	201	361	5.24	218	5.27	-0.03
	Unchahar II TPS	420	404	374	309	8.52	355	8.59	-0.07
	Unchahar III TPS	210	201	181	154	4.19	175	4.22	-0.02
	ISTPP (Jhajjhar)	1500	1480	646	636	14.41	600	14.72	-0.31
	Dadri GPS	830	833	391	355	8.85	369	8.96	-0.11
	Anta GPS	419	424	312	253	6.20	258	6.31	-0.11
	Auraiya GPS	663	665	161	164	3.75	156	3.80	-0.06
	Sub Total (A)	**11282**	**10221**	**8487**	**7527**	**184.23**	**7676**	**185.35**	**-1.11**
B. NPC	NAPS	440	321	365	361	7.74	323	7.70	0.04
	RAPS- B	440	419	464	464	10.07	420	10.06	0.02
	RAPS- C	440	430	474	476	10.23	426	10.32	-0.09
	Sub Total (B)	**1320**	**1170**	**1303**	**1301**	**28.04**	**1168**	**28.08**	**-0.04**
C. NHPC	Chamera I HPS	540	360	360	0	1.62	68	1.60	0.02
	Chamera II HPS	300	300	170	0	1.28	53	1.32	-0.05
	Chamera III HPS	231	231	128	0	0.70	29	0.70	-0.01
	Bairasuil HPS	180	182	10	0	0.47	20	0.46	0.01
	Salal-HPS	690	127	202	96	2.83	118	3.05	-0.21
	Tanakpur-HPS	94	31	30	32	0.76	32	0.98	-0.22
	Uri-HPS	480	88	218	106	2.37	99	2.33	0.04
	Uri-II HPS	120	60	122	40	1.43	60	1.44	-0.01
	Dhauliganga-HPS	280	0	0	0	0.00	0	0.00	0.00
	Dulhasti-HPS	390	380	20	0	3.07	128	2.92	0.14
	Sewa-II HPS	120	0	0	0	0.00	0	0.00	0.00
	Sub Total (C)	**3425**	**1759**	**1260**	**274**	**14.51**	**605**	**14.80**	**-0.28**
D.NJPC	Nathpa Jhakri	1500	1080	1084	0	8.89	370	8.10	0.79
	Sub Total (D)	1500	1080	1084	0	8.89	370	8.10	0.79
E. THDC	Tehri HPS	1000	1060	1006	0	6.47	270	6.40	0.07
	Koteshwar HPS	400	92	101	91	2.23	93	2.20	0.03
	Sub Total (E)	**1400**	**1152**	**1107**	**91**	**8.70**	**362**	**8.60**	**0.10**
F. BBMB	Bhakra HPS	1497	780	1012	509	19.03	793	18.72	0.31
	Dehar HPS	990	121	330	0	3.14	131	2.91	0.24
	Pong HPS	396	315	372	186	7.70	321	7.56	0.14
	Sub Total (F)	**2883**	**1216**	**1714**	**695**	**29.87**	**1245**	**29.18**	**0.69**
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	0	0	0.46	19	0.49	-0.03
	KWHEP HPS(IPP)	1000	0	340	0	3.98	166	3.96	0.03
	Malana Stg-II HPS	100	0	0	0	0.00	0	0.00	0.00
	Shree Cement TPS	300	0	280	149	5.51	229	5.55	-0.05
	Budhil HPS(IPP)	70	0	0	0	0.00	0	0.00	0.00
	Sub Total (G)	1662	0	620	149	9.95	415	10.00	-0.05
H. Total Regional Entities (A-G)		**23472**	**16598**	**15575**	**10037**	**284.20**	**11842**	**284.10**	**0.09**

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	890	770	17.88	745
	Guru Nanak Dev TPS(Bhatinda)	440	220	160	3.57	149
	Guru Hargobind Singh TPS(L.mbt)	920	961	668	18.45	769
	Goindwal(GVK)		0	0	0.00	0
	Thermal (Total)	2620	2071	1598	39.90	1662
	Total Hydro	1148	487	445	10.92	455
	Total Punjab	**3768**	**2558**	**2043**	**50.81**	**2117**
Haryana	Panipat TPS	1367	847	784	18.69	779
	DCRTPP (Yamuna nagar)	600	520	521	12.00	500
	Faridabad GPS (NTPC)	432	0	0	0.00	0
	RGTPP (khedar) (IPP)	1200	468	496	11.75	490
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	1197	744	21.89	912
	Thermal (Total)	4944	3032	2545	64.33	2680
	Total Hydro	62	15	18	0.42	18
	Total Haryana	**5006**	**3047**	**2563**	**64.75**	**2698**
Rajasthan	kota TPS	1240	1157	1088	27.09	1129
	suratgarh TPS	1500	881	789	20.21	842
	Chabra TPS	500	566	486	12.66	527
	Dholpur GPS	330	103	101	2.56	107
	Ramgarh GPS	111	131	132	3.49	145
	RAPS A (NPC)	300	175	175	4.04	168
	Barsingsar (NLC)	250	221	218	5.19	216
	Giral LTPS	250	37	37	1.13	47
	Rajwest LTPS (IPP)	1080	471	355	10.42	434
	VSLP LTPS (IPP)	135	0	0	0.00	0
	Kalisindh Thermal	600	0	0	0.00	0
	Kawai(Adani)	660	599	461	12.98	541
	Thermal (Total)	6956	4341	3842	99.76	4157
	Total Hydro	550	234	123	5.04	210
	Wind power	2191	306	340	7.65	319
	Biomass	91	25	25	0.60	25
	Solar	201	6	0	0.60	25
	Renewable/Others (Total)	2483	331	365	8.85	369
	Total Rajasthan	**9989**	**4906**	**4330**	**113.64**	**4735**
UP	Anpara TPS	1630	1211	1250	29.20	1217
	Obra TPS	1288	321	292	7.50	313
	Paricha TPS	1140	527	481	12.00	500
	Panki TPS	210	54	59	1.50	63
	Harduaganj TPS	665	443	442	10.70	446
	Tanda TPS (NTPC)	440	381	400	9.56	398
	Roza TPS (IPP)	1200	810	648	18.59	775
	Anpara-C (IPP)	1200	1054	996	24.98	1041
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	403	289	8.85	369
	Thermal (Total)	8223	5204	4857	122.88	5120
	Vishnuparyag HPS (IPP)	400	0	0	0.00	0
	Other Hydro	527	115	157	3.54	147
	Cogeneration	981	470	470	11.30	471
	Total UP	**10131**	**5789**	**5484**	**137.72**	**5738**
Uttarakhand	Total Hydro	1303	646	333	10.55	440
	Total Uttarakhand	**1303**	**646**	**333**	**10.55**	**440**
Delhi	Rajghat TPS	135	0	0	0.00	0
	Delhi Gas Turbine	282	83	81	1.81	76
	Pragati Gas Turbine	330	317	267	7.26	303
	Rithala GPS	95	0	0	0.00	0
	Bawana GPS	686	0	0	0.00	0
	Badarpur TPS (NTPC)	705	300	255	6.20	258
	Thermal (Total)	2232	700	603	15.28	637
	Total Delhi	**2232**	**700**	**603**	**15.28**	**637**
HP	Baspa HPS (IPP)	330	29	0	1.43	60
	Malana HPS (IPP)	86	0	0	0.22	9
	Other Hydro	589	176	115	3.66	152
	Total HP	**1005**	**205**	**115**	**5.31**	**221**
J & K	Baglihar HPS (IPP)	450	294	108	3.70	154
	Other Hydro	323	132	130	3.14	131
	Gas/Diesel/Others	183	0	0	0.00	0
	Total J & K	**956**	**426**	**238**	**6.84**	285
Total State Control Area Generation		**34390**	**18277**	**15709**	**404.89**	**16871**
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			**2199**	**3626**	**93.69**	**3904**
Total Regional Availability(Gross)		**57862**	**36051**	**29372**	**782.78**	**32616**

IV. Total Hydro Generation:

Regional Entities Hydro	**10500**	**5505**	**1060**	**66.42**	**2767**
State Control Area Hydro	**5368**	**2128**	**1429**	**42.60**	**1775**
Total Regional Hydro	**15868**	**7633**	**2489**	**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	-150	-500	0	500	0.00	6.88	-6.88
Gwalior-Agra (D/C)	150	1440	1664	0	30.63	0.00	30.63
Zerda-Kankroli	-98	-149	53	278	0.00	1.44	-1.44
Zerda-Bhinmal	-2	-52	202	213	0.80	0.00	0.80
Malanpur-Auraiya	-103	-72	0	125	0.00	2.31	-2.31
Badod-Kota/Morak	-93	-144	0	218	0.00	3.13	-3.13
Mundra-Mohindergarh(HVDC)	1699	1502	1704	0	39.36	0.00	39.36
Sub Total WR	**1403**	**2025**			**70.79**	**13.76**	**57.03**
Pusauli Bypass	-283	-103	143	292	0.57	2.24	-1.67
MZP- GKP (D/C)	260	404	579	0	8.99	0.00	8.99
Patna-Balia(D/C)	446	664	743	0	13.40	0.00	13.40
B'Sharif-Balia (D/C)	174	403	567	0	8.82	0.00	8.82
Pusauli-Balia	14	67	122	0	1.30	0.00	1.30
Gaya-Fatehpur (765 Kv)	119	80	320	0	3.99	0.00	3.99
Pusauli-Sahupuri	98	116	139	0	2.68	0.00	2.68
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-32	-30	0	37	0.00	0.84	-0.84
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	**796**	**1601**			**39.74**	**3.08**	**36.66**
Total IR Exch	**2199**	**3626**			**110.53**	**16.84**	**93.69**

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
31.26	0.57	31.83	17.10	-14.59	5.23	6.93	4.08	-4.08

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
58.24	42.94	101.18	36.66	57.03	93.69	-21.58	14.09	-7.49

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	1.22	93.72	1.70	92.50	77.29	6.28

<---------- 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)
50.44	4.06	49.67	6.44	50.10	0.29	0.11	50.33	49.85

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	412	23:19	402	09:09	0.0	0.0	0.0	0.0
Gorakhpur	400	429	20:26	409	12:49	0.0	0.0	38.9	0.0
Bareilly	400	425	04:03	405	12:08	0.0	0.0	19.5	0.0
Kanpur	400	426	04:03	401	12:15	0.0	0.0	13.0	0.0
Dadri	400	428	04:04	402	12:15	0.0	0.0	21.5	0.0
Ballabhgarh	400	436	04:03	406	12:14	0.0	0.0	43.2	6.2
Bawana	400	432	04:04	405	12:14	0.0	0.0	35.0	0.2
Bassi	400	422	04:03	386	10:23	0.0	5.0	0.3	0.0
Hissar	400	421	04:05	391	11:46	0.0	0.0	0.0	0.0
Moga	400	426	04:03	395	12:06	0.0	0.0	4.4	0.0
Abdullapur	400	426	04:04	405	09:22	0.0	0.0	5.4	0.0
Nalagarh	400	427	04:03	398	12:07	0.0	0.0	24.6	0.0
Kishenpur	400	420	04:01	390	10:25	0.0	0.0	0.0	0.0
Wagoora	400	405	13:07	360	12:06	47.9	79.0	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	776	04:00	747	12:00	0.0	0.0	0.0	0.0
Balia	765	764	20:43	725	12:18	2.3	27.3	0.0	0.0
Moga	765	797	04:03	740	12:07	0.0	0.5	0.0	0.0
Agra	765	820	04:05	764	12:17	0.0	0.0	29.7	0.0
Bhiwani	765	800	04:00	755	12:00	0.0	0.0	0.0	0.0
Unnao	765	764	00:00	736	14:57	0.0	3.7	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	505.29	1325.82	497.66	1006.54	189.33	558.78
Pong	426.72	384.05	414.72	668.52	413.14	600.05	69.18	470.94
Tehri	829.79	740.04	817.60	955.00	818.65	982.26	43.99	144.00
Koteshwar	612.50	598.50	610.10	4.60	NA	NA	145.00	148.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	44.01	44.01
Rihand	268.22	252.98	261.31	378.10	262.34	439.10	NA	NA
RPS	352.80	343.81	NA	NA	NA	NA	NA	NA
Jawahar Sagar	298.70	295.78	NA	NA	NA	NA	NA	NA
RSD	527.91	487.91	513.26	144.00	518.91	144.00	46.50	123.04

*** NA: Not Available**

X. System Constraints:

XI. Grid Disturbance / Any Other Significant Event:

XII. Weather Conditions For 14.12.2013 :
1.Normal weather.

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 : 14.12.2013 **पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER**