पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)

उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 14.12.2014
Date of Reporting : 15.12.2014

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
33089	1360	34450	50.11	26149	295	26444	50.13	695.0	29.10

* 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	30.47	5.14		35.61	33.78	31.74	-2.04	67.35	0.00
Haryana	54.67	0.43		55.10	44.50	42.74	-1.76	97.84	0.00
Rajasthan	117.82	4.35	4.77	126.94	70.52	70.41	-0.11	197.34	0.00
Delhi	17.82			17.82	38.64	36.78	-1.86	54.60	0.00
UP	119.70	2.70		122.40	72.88	69.41	-3.47	191.81	21.50
Uttarakhand		9.07		9.07	20.77	19.82	-0.95	28.88	0.00
HP		1.75		1.75	16.47	13.06	-3.41	14.81	0.00
J & K		1.40	0.00	1.40	35.65	37.82	2.17	39.21	7.61
Chandigarh				0.00	3.09	3.19		3.19	0.00
Total	**340.47**	**24.83**	**4.77**	**370.07**	**336.29**	**324.96**	**-11.43**	**695.04**	**29.10**

* 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	3626	0	-59	-157	2509	0	-152	-345	3626
Haryana	5024	0	-627	-767	3638	0	244	-747	5024
Rajasthan	8803	0	-182	114	7438	0	162	985	9230
Delhi	2533	0	-283	-459	1643	0	92	-950	3238
UP	8610	1020	-209	58	7444	0	-439	62	8801
Uttarakhand	1370	0	-148	620	1122	0	44	404	1492
HP	1022	0	-131	376	595	0	-71	364	1022
J&K	1929	340	4	538	1673	295	71	663	1944
Chandigarh	173	0	-12	0	87	0	3	-30	173
Total	**33089**	**1360**	**-1646**	**324**	**26149**	**295**	**-47**	**406**	**33089**

* 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	1402	1548	1252	33.42	1393	31.22	2.20
	Rihand I STPS (2*500)	1000	904	905	697	19.83	826	18.35	1.49
	Rihand II STPS (2*500)	1000	970	1011	679	20.72	863	19.80	0.91
	Rihand III STPS (2*500)	1000	912	991	465	19.77	824	18.02	1.75
	Dadri I STPS (4*210)	840	615	562	451	11.99	500	11.16	0.83
	Dadri II STPS (2*490)	980	980	713	702	19.19	800	16.70	2.49
	Unchahar I TPS (2*210)	420	407	321	300	7.81	325	7.40	0.40
	Unchahar II TPS (2*210)	420	407	291	292	7.34	306	7.11	0.24
	Unchahar III TPS (1*220)	210	203	154	152	3.70	154	3.48	0.22
	ISTPP (Jhajjhar) (3*500)	1500	1500	870	870	1.96	82	21.61	-19.64
	Dadri GPS (4*130.19+2*154.51)	830	825	411	349	9.08	378	9.32	-0.25
	Anta GPS (3*88.71+1*153.2)	419	375	209	207	5.38	224	5.40	-0.02
	Auraiya GPS (4*111.19+2*109.30)	663	493	299	305	7.27	303	7.10	0.17
	Dadri Solar	5	1	0	0	0.00	0	0.01	-0.01
	Unchahar Solar	10	3	0	0	0.01	0	0.07	-0.06
	Sub Total (A)	**11297**	**9997**	**8285**	**6721**	**167**	**6978**	**177**	**-9**
B. NPC	NAPS (2*220)	440	295	330	331	7.13	297	7.08	0.05
	RAPS- B (2*220)	440	412	454	454	9.85	411	9.89	-0.03
	RAPS- C (2*220)	440	220	238	239	5.13	214	5.28	-0.15
	Sub Total (B)	**1320**	**927**	**1022**	**1024**	**22.11**	**921**	**22.25**	**-0.14**
C. NHPC	Chamera I HPS (3*180)	540	356	182	0	1.99	83	1.90	0.09
	Chamera II HPS (3*100)	300	200	204	0	1.30	54	1.25	0.05
	Chamera III HPS (3*77)	231	154	162	0	0.62	26	0.65	-0.03
	Bairasuil HPS(3*60)	180	179	120	0	0.67	28	0.60	0.07
	Salal-HPS (6*115)	690	121	223	135	3.05	127	2.91	0.14
	Tanakpur-HPS (3*40)	94	27	45	26	0.66	27	0.64	0.02
	Uri-I HPS (4*120)	480	132	214	81	3.20	133	3.29	-0.09
	Uri-II HPS (4*60)	240	0	0	0	0.00	0	0.00	0.00
	Dhauliganga-HPS (4*70)	280	136	141	0	1.01	42	1.00	0.01
	Dulhasti-HPS (3*130)	390	387	394	0	2.81	117	2.70	0.11
	Sewa-II HPS (3*40)	120	79	82	0	0.24	10	0.24	0.00
	Parbati 3 (4*130)	520	0	0	0	0.00	0	0.00	0.00
	Sub Total (C)	**4065**	**1771**	**1765**	**242**	**16**	**648**	**15**	**0**
D.SJVNL	NJPC (6*250)	1500	1605	1309	0	6.29	262	6.21	0.08
	Rampur HEP (4*68.67)	275	350	335	0	1.67	70	1.71	-0.04
	Sub Total (D)	1775	1955	1644	0	7.96	332	7.93	0.04
E. THDC	Tehri HPS (4*250)	1000	1060	758	0	7.08	295	7.00	0.08
	Koteshwar HPS (4*100)	400	104	91	90	2.50	104	2.50	0.00
	Sub Total (E)	**1400**	**1164**	**849**	**90**	**9.58**	**399**	**9.50**	**0.08**
F. BBMB	Bhakra HPS (3*108+2*126+6*157)	1514	510	1058	387	12.22	509	12.25	-0.03
	Dehar HPS (6*165)	990	125	165	0	3.11	130	3.00	0.11
	Pong HPS (6*66)	396	277	324	126	6.70	279	6.65	0.05
	Sub Total (F)	**2900**	**912**	**1547**	**513**	**22.03**	**918**	**21.90**	**0.14**
G. IPP(s)/JV(s)	ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	0	0	0.37	15	0.36	0.01
	KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	580	0	3.32	138	3.24	0.08
	Malana Stg-II HPS (2*50)	100	0	0	0	0.09	4	0.18	-0.09
	Shree Cement TPS (2*150)	300	0	141	115	3.06	128	4.45	-1.38
	Budhil HPS(IPP)	70	0	0	0	0.00	0	0.00	0.00
	Sub Total (G)	1662	0	721	115	6.84	285	8.22	-1.38
H. Total Regional Entities (A-G)		**24419**	**16726**	**15834**	**8705**	**251.54**	**10481**	**261.71**	**-10.17**

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	320	4.91	205
	Guru Nanak Dev TPS(Bhatinda) (4*110)	440	100	100	2.20	91
	Guru Hargobind Singh TPS(L.mbt) (2*210+2*250)	920	173	327	4.53	189
	Goindwal(GVK)		0	0	0.00	0
	Rajpura (2*700)	1400	361	681	11.20	467
	Talwandi Saboo (1*660)	660	348	345	7.63	318
	Thermal (Total)	**4680**	**1142**	**1773**	**30.47**	**1269**
	Total Hydro	1148	200	236	5.14	214
	Total Punjab	**5828**	**1342**	**2009**	**35.61**	**1484**
Haryana	Panipat TPS (4*110+2*210+2*250)	1367	878	834	19.49	812
	DCRTPP (Yamuna nagar) (2*300)	600	273	239	5.77	241
	Faridabad GPS (NTPC)	432	0	0	0.00	0
	RGTPP (khedar) (IPP) (2*600)	1200	575	370	9.51	396
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP) (2*660)	1320	1060	744	19.90	829
	Thermal (Total)	**4944**	**2786**	**2187**	**54.67**	**2278**
	Total Hydro	62	21	18	0.43	18
	Total Haryana	**5006**	**2807**	**2205**	**55.10**	**2296**
Rajasthan	kota TPS (2*110+2*195+3*210)	1240	985	958	22.54	939
	suratgarh TPS (6*250)	1500	1191	988	27.14	1131
	Chabra TPS (3*250)	750	640	566	15.08	628
	Dholpur GPS (3*110)	330	131	111	2.94	122
	Ramgarh GPS (1*3 + 1*35.5 +2*37.5 +1*110 +1*50)	271	224	183	5.22	217
	RAPS A (NPC) (1*100+1*200)	300	149	152	4.14	173
	Barsingsar (NLC) (2*125)	250	95	95	2.09	87
	Giral LTPS (2*125)	250	75	37	1.18	49
	Rajwest LTPS (IPP) (8*135)	1080	733	385	13.40	558
	VS LIGNITE LTPS (IPP) (1*135)	135	0	0	0.00	0
	Kalisindh Thermal(1*600)	600	0	0	0.00	0
	Kawai(Adani) (2*660)	1320	1047	842	24.09	1004
	Thermal (Total)	**8026**	**5270**	**4317**	**118**	**4909**
	Total Hydro	550	150	138	4.35	181
	Wind power	2798	120	244	3.96	165
	Biomass	99	29	29	0.70	29
	Solar	730	1	0	0.10	4
	Renewable/Others (Total)	3627	150	273	4.77	199
	Total Rajasthan	**12203**	**5570**	**4728**	**126.94**	**5289**
UP	Anpara TPS (3*210+2*500)	1630	952	959	22.30	929
	Obra TPS (2*50+2*94+5*200)	1194	298	312	7.30	304
	Paricha TPS (2*110+2*220+2*250)	1140	733	768	18.20	758
	Panki TPS (2*105)	210	81	126	2.60	108
	Harduaganj TPS (1*60+1*105+2*250)	665	347	459	9.70	404
	Tanda TPS (NTPC) (4*110)	440	223	225	5.60	233
	Roza TPS (IPP) (4*300)	1200	581	563	13.40	558
	Anpara-C (IPP) (2*600)	1200	662	658	16.40	683
	Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)	450	140	140	5.00	208
	Thermal (Total)	**8129**	**4017**	**4210**	**100.50**	**4188**
	Vishnuparyag HPS (IPP)	400	90	88	2.10	88
	Other Hydro	527	39	10	0.60	25
	Cogeneration	981	800	800	19.20	800
	Total UP	**10037**	**4946**	**5108**	**122.40**	**5013**
Uttarakhand	Total Hydro	1398	452	252	9.07	378
	Total Uttarakhand	**1398**	**452**	**252**	**9.07**	**378**
Delhi	Rajghat TPS (2*67.5)	135	0	0	0.00	0
	Delhi Gas Turbine (6x30 + 3x34)	282	81	81	1.86	77
	Pragati Gas Turbine (2x104+ 1x122)	330	158	158	3.75	156
	Rithala GPS (3*36)	95	0	0	0.00	0
	Bawana GPS (6*250)	1370	268	269	6.55	273
	Badarpur TPS (NTPC) (3*95+2*210)	705	215	208	5.67	236
	Thermal (Total)	2917	722	716	17.82	743
	Total Delhi	**2917**	**722**	**716**	**17.82**	**743**
HP	Baspa HPS (IPP) (2*150)	300	25	0	1.11	46
	Malana HPS (IPP) (2*43)	86	0	0	0.22	9
	Other Hydro	728	205	123	0.42	17
	Total HP	**1114**	**230**	**123**	**1.75**	**73**
J & K	Baglihar HPS (IPP) (3*150)	450	260	120	0.00	0
	Other Hydro/IPP	436	94	41	1.40	58
	Gas/Diesel/Others	209	0	0	0.00	0
	Total J & K	**1094**	**354**	**161**	**1.40**	58
Total State Control Area Generation		**39597**	**16423**	**15302**	**370.07**	**15332**
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			**3399**	**3226**	**99.86**	**4161**
Total Regional Availability(Gross)		**64017**	**35656**	**27233**	**721.48**	**29974**

IV. Total Hydro Generation:

Regional Entities Hydro	**11432**	**6386**	**845**	**58.91**	**2455**
State Control Area Hydro	**5684**	**1446**	**938**	**24.83**	**947**
Total Regional Hydro	**17116**	**7832**	**1783**	**83.74**	**3402**

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	-300	-350	50	500	0.27	5.61	-5.34
Gwalior-Agra (D/C)	1189	1188	2139	0	35.66	0.00	35.66
Zerda-Kankroli	-65	-259	58	276	0.00	2.28	-2.28
Zerda-Bhinmal	14	-139	164	181	0.13	0.00	0.13
Malanpur-Auraiya	-91	-60	0	-91	0.00	1.64	-1.64
Badod-Kota/Morak	33	-89	27	75	0.00	1.23	-1.23
Mundra-Mohindergarh(HVDC)	2098	2302	2307	0	53.29	0.00	53.29
Vindhyachal - Rihand	0	0	0	0	0.00	0.00	0.00
Sub Total WR	**2878**	**2593**			**89.35**	**10.77**	**78.59**
Pusauli Bypass	425	425	425	0	10.33	0.00	10.33
MZP- GKP (D/C)	100	8	296	170	0.72	0.00	0.72
Patna-Balia(D/C)	228	362	558	0	9.36	0.00	9.36
B'Sharif-Balia (D/C)	29	46	208	48	1.38	0.00	1.38
Pusauli-Balia	-175	-135	0	175	0.00	3.33	-3.33
Gaya-Fatehpur (765 Kv)	19	26	359	58	3.02	0.00	3.02
Pusauli-Sahupuri	97	120	184	0	2.95	0.00	2.95
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-17	-40	0	45	0.00	0.79	-0.79
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	-185	-179	110	256	0.00	2.37	-2.37
Sub Total ER	**521**	**633**			**27.76**	**6.49**	**21.28**
Total IR Exch	**3399**	**3226**			**117.12**	**17.26**	**99.86**

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
21.70	0.44	22.14	7.85	-9.82	4.65	11.18	6.01	-6.01

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
40.66	51.06	91.72	21.28	78.59	99.86	-19.38	27.53	8.14

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	0.00	8.51	8.74	38.82	51.25	19.25	13.85	6.98	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)
50.58	23.59	49.75	18.12	50.03	0.12	0.10	50.48	49.94

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	417	23:47	407	12:45	0.0	0.0	0.0	0.0
Gorakhpur	400	417	23:59	398	17:23	0.0	0.0	0.0	0.0
Bareilly	400	432	23:59	413	09:26	0.0	0.0	40.7	0.1
Kanpur	400	425	02:39	409	09:52	0.0	0.0	26.8	0.0
Dadri	400	426	03:58	409	09:46	0.3	0.3	36.7	0.0
Ballabhgarh	400	433	03:58	414	09:46	0.0	0.0	70.9	15.7
Bawana	400	431	03:58	412	09:53	0.0	0.0	60.0	0.2
Bassi	400	428	05:01	397	09:52	0.0	0.0	30.7	0.0
Hissar	400	421	03:58	402	14:35	0.0	0.0	0.2	0.0
Moga	400	426	00:49	407	10:48	0.0	0.0	34.8	0.0
Abdullapur	400	426	23:57	396	18:27	0.0	0.0	34.9	0.0
Nalagarh	400	431	03:53	414	18:23	0.0	0.0	80.2	0.9
Kishenpur	400	425	03:59	396	11:45	0.0	0.0	11.6	0.0
Wagoora	400	406	03:58	369	18:18	42.9	72.3	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	779	20:49	746	09:46	0.0	0.0	0.0	0.0
Balia	765	782	23:58	753	18:12	0.0	0.0	0.0	0.0
Moga	765	805	04:00	768	11:12	0.0	0.0	9.5	0.0
Agra	765	800	23:56	757	09:38	0.0	0.0	0.0	0.0
Bhiwani	765	807	21:00	770	14:36	0.0	0.0	22.3	0.0
Unnao	765	784	02:39	734	01:36	0.0	4.4	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	500.52	1114.30	505.29	1325.82	232.34	353.82
Pong	426.72	384.05	408.05	435.19	414.72	668.52	149.85	451.51
Tehri	829.79	740.04	815.05	903.25	817.85	959.25	47.79	160.00
Koteshwar	612.50	598.50	609.94	4.44	610.15	4.69	160.00	165.00
Chamera-I	760.00	748.75	759.40	0.00	0.00	0.00	62.30	53.50
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	508.49	0.22	513.26	2.88	53.54	103.30

*** 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	-391	46	0	-411	254	0	-10.44	5.65	-4.79
Delhi	-904	-15	-30	-521	93	-30	-14.65	0.64	-14.00
Haryana	-882	135	0	-866	99	0	-22.26	2.47	-19.79
HP	431	-66	0	401	-25	0	10.71	-2.91	7.80
J&K	663	0	0	440	98	0	12.36	1.29	13.65
CHD	-30	0	0	0	0	0	-0.24	0.01	-0.23
Rajasthan	490	493	2	490	-378	2	15.78	7.50	23.28
UP	62	0	0	58	0	0	0.58	0.00	0.58
Uttarakhand	215	175	14	215	395	10	5.16	5.60	10.76
Total	**-347**	**768**	**-15**	**-193**	**535**	**-19**	**-3.00**	**20.26**	**17.26**

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	-391	-485	382	5	0	0
Delhi	-426	-904	364	-178	-20	-30
Haryana	-866	-1032	139	78	0	0
HP	476	382	10	-503	0	0
J&K	663	440	147	-102	0	0
CHD	0	-30	10	0	0	0
Rajasthan	849	490	498	-539	2	2
UP	96	-63	0	0	0	0
Uttarakhand	215	215	396	129	38	4

XI. System Constraints:

XII. Grid Disturbance / Any Other Significant Event:

XIII. Weather Conditions For 14.12.2014 :

Fog in Eastern UP

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 : 14.12.2014 **पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER**