पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)

उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 15.12.2014
Date of Reporting : 16.12.2014

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
36840	1443	38284	50.04	24388	289	24677	50.52	734.8	35.14

* 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	28.22	7.96		36.18	40.33	41.32	0.99	77.50	0.00
Haryana	52.92	0.41		53.34	45.44	43.05	-2.38	96.39	0.00
Rajasthan	122.26	4.46	3.09	129.81	68.30	68.55	0.25	198.36	0.00
Delhi	18.08			18.08	41.43	39.98	-1.45	58.06	0.00
UP	123.90	3.00		126.90	79.53	79.45	-0.08	206.35	27.37
Uttarakhand		8.88		8.88	21.21	20.22	-0.99	29.10	0.23
HP		5.19		5.19	18.18	17.38	-0.80	22.57	0.00
J & K		5.21	0.00	5.21	34.91	37.56	2.65	42.77	7.55
Chandigarh				0.00	3.44	3.72	0.27	3.72	0.00
Total	**345.38**	**35.11**	**3.09**	**383.58**	**352.75**	**351.23**	**-1.53**	**734.81**	**35.14**

* 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	4225	0	21	-341	2471	0	99	-365	4225
Haryana	5696	0	46	-757	2705	0	-608	-773	5696
Rajasthan	9216	0	-65	223	7247	0	-131	983	9216
Delhi	2975	0	-126	-325	1495	0	7	-954	3200
UP	9956	1020	-49	116	7392	0	-60	46	9956
Uttarakhand	1562	75	-50	670	753	0	-239	384	1562
HP	1039	0	-183	356	606	0	-49	260	1255
J&K	1973	348	108	536	1635	289	14	640	1984
Chandigarh	199	0	4	0	84	0	-7	-31	200
Total	**36840**	**1443**	**-294**	**478**	**24388**	**289**	**-974**	**191**	**36840**

* 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	1450	1565	1157	35.25	1469	32.83	2.42
	Rihand I STPS (2*500)	1000	892	952	644	20.62	859	19.46	1.16
	Rihand II STPS (2*500)	1000	970	1041	639	22.08	920	21.08	1.00
	Rihand III STPS (2*500)	1000	959	989	711	21.67	903	20.34	1.33
	Dadri I STPS (4*210)	840	615	675	451	13.26	553	12.47	0.79
	Dadri II STPS (2*490)	980	980	827	599	19.32	805	18.77	0.55
	Unchahar I TPS (2*210)	420	405	440	291	8.83	368	8.22	0.61
	Unchahar II TPS (2*210)	420	405	435	285	8.90	371	8.27	0.63
	Unchahar III TPS (1*220)	210	202	217	143	4.40	183	4.09	0.32
	ISTPP (Jhajjhar) (3*500)	1500	1500	979	866	20.22	843	22.21	-1.99
	Dadri GPS (4*130.19+2*154.51)	830	828	355	331	8.73	364	9.02	-0.29
	Anta GPS (3*88.71+1*153.2)	419	420	205	200	5.79	241	5.87	-0.09
	Auraiya GPS (4*111.19+2*109.30)	663	493	218	304	7.26	302	7.14	0.12
	Dadri Solar	5	1	0	0	0.01	1	0.03	-0.01
	Unchahar Solar	10	3	0	0	0.02	1	0.07	-0.05
	Sub Total (A)	**11297**	**10123**	**8898**	**6621**	**196**	**8182**	**190**	**6**
B. NPC	NAPS (2*220)	440	294	331	337	7.06	294	7.06	0.00
	RAPS- B (2*220)	440	409	460	456	9.91	413	9.82	0.10
	RAPS- C (2*220)	440	220	239	238	5.03	210	5.28	-0.25
	Sub Total (B)	**1320**	**923**	**1030**	**1031**	**22.00**	**917**	**22.15**	**-0.15**
C. NHPC	Chamera I HPS (3*180)	540	356	372	0	2.23	93	2.10	0.13
	Chamera II HPS (3*100)	300	200	200	0	1.37	57	1.30	0.07
	Chamera III HPS (3*77)	231	154	155	0	0.69	29	0.65	0.04
	Bairasuil HPS(3*60)	180	179	140	0	0.59	25	0.52	0.07
	Salal-HPS (6*115)	690	127	226	60	3.05	127	3.13	-0.08
	Tanakpur-HPS (3*40)	94	47	62	22	1.24	52	1.12	0.12
	Uri-I HPS (4*120)	480	129	217	77	3.18	132	3.04	0.14
	Uri-II HPS (4*60)	240	0	0	0	0.00	0	0.00	0.00
	Dhauliganga-HPS (4*70)	280	128	138	0	0.11	4	1.00	-0.89
	Dulhasti-HPS (3*130)	390	387	396	0	2.92	122	2.80	0.12
	Sewa-II HPS (3*40)	120	79	78	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**	**1786**	**1984**	**159**	**16**	**651**	**16**	**0**
D.SJVNL	NJPC (6*250)	1500	1605	1212	0	6.80	283	6.69	0.10
	Rampur HEP (4*68.67)	275	350	285	0	1.55	65	1.55	-0.01
	Sub Total (D)	1775	1955	1497	0	8.35	348	8.25	0.10
E. THDC	Tehri HPS (4*250)	1000	1060	728	0	7.11	296	7.00	0.11
	Koteshwar HPS (4*100)	400	104	203	87	2.53	105	2.50	0.03
	Sub Total (E)	**1400**	**1164**	**931**	**87**	**9.63**	**401**	**9.50**	**0.13**
F. BBMB	Bhakra HPS (3*108+2*126+6*157)	1514	494	1061	356	11.72	488	11.85	-0.12
	Dehar HPS (6*165)	990	154	330	140	3.78	157	3.69	0.09
	Pong HPS (6*66)	396	258	324	66	6.24	260	6.20	0.04
	Sub Total (F)	**2900**	**906**	**1715**	**562**	**21.74**	**906**	**21.73**	**0.00**
G. IPP(s)/JV(s)	ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	0	0	0.39	16	0.38	0.01
	KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	622	0	3.70	154	3.47	0.23
	Malana Stg-II HPS (2*50)	100	0	0	0	0.00	0	0.02	-0.02
	Shree Cement TPS (2*150)	300	0	156	139	3.48	145	3.61	-0.13
	Budhil HPS(IPP)	70	0	0	0	0.11	5	0.11	0.00
	Sub Total (G)	1662	0	778	139	7.68	320	7.60	0.08
H. Total Regional Entities (A-G)		**24419**	**16856**	**16834**	**8599**	**281.39**	**11725**	**275.01**	**6.38**

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	210	160	3.77	157
	Guru Nanak Dev TPS(Bhatinda) (4*110)	440	115	100	2.36	98
	Guru Hargobind Singh TPS(L.mbt) (2*210+2*250)	920	255	171	4.24	177
	Goindwal(GVK)		0	0	0.00	0
	Rajpura (2*700)	1400	562	356	9.89	412
	Talwandi Saboo (1*660)	660	390	343	7.96	332
	Thermal (Total)	**4680**	**1532**	**1130**	**28.22**	**1176**
	Total Hydro	1148	365	291	7.96	332
	Total Punjab	**5828**	**1897**	**1421**	**36.18**	**1508**
Haryana	Panipat TPS (4*110+2*210+2*250)	1367	707	800	16.05	669
	DCRTPP (Yamuna nagar) (2*300)	600	274	234	5.81	242
	Faridabad GPS (NTPC)	432	0	0	0.00	0
	RGTPP (khedar) (IPP) (2*600)	1200	585	358	9.83	409
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP) (2*660)	1320	1034	835	21.24	885
	Thermal (Total)	**4944**	**2600**	**2227**	**52.92**	**2205**
	Total Hydro	62	18	16	0.41	17
	Total Haryana	**5006**	**2618**	**2243**	**53.34**	**2222**
Rajasthan	kota TPS (2*110+2*195+3*210)	1240	1033	956	24.05	1002
	suratgarh TPS (6*250)	1500	1356	1160	29.53	1230
	Chabra TPS (3*250)	750	623	623	14.51	604
	Dholpur GPS (3*110)	330	132	101	3.07	128
	Ramgarh GPS (1*3 + 1*35.5 +2*37.5 +1*110 +1*50)	271	176	183	3.95	165
	RAPS A (NPC) (1*100+1*200)	300	148	152	4.10	171
	Barsingsar (NLC) (2*125)	250	95	95	2.12	88
	Giral LTPS (2*125)	250	48	79	1.26	52
	Rajwest LTPS (IPP) (8*135)	1080	732	384	14.38	599
	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	1120	841	25.30	1054
	Thermal (Total)	**8026**	**5463**	**4574**	**122**	**5094**
	Total Hydro	550	244	163	4.46	186
	Wind power	2798	82	83	2.47	103
	Biomass	99	22	22	0.53	22
	Solar	730	0	0	0.10	4
	Renewable/Others (Total)	3627	104	105	3.09	129
	Total Rajasthan	**12203**	**5811**	**4842**	**129.81**	**5409**
UP	Anpara TPS (3*210+2*500)	1630	1312	842	25.90	1079
	Obra TPS (2*50+2*94+5*200)	1194	247	178	5.20	217
	Paricha TPS (2*110+2*220+2*250)	1140	589	738	15.10	629
	Panki TPS (2*105)	210	126	140	3.00	125
	Harduaganj TPS (1*60+1*105+2*250)	665	462	410	10.30	429
	Tanda TPS (NTPC) (4*110)	440	231	220	6.10	254
	Roza TPS (IPP) (4*300)	1200	764	581	15.70	654
	Anpara-C (IPP) (2*600)	1200	1076	612	21.10	879
	Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)	450	0	140	2.30	96
	Thermal (Total)	**8129**	**4807**	**3861**	**104.70**	**4363**
	Vishnuparyag HPS (IPP)	400	91	87	2.10	88
	Other Hydro	527	48	40	0.90	38
	Cogeneration	981	800	800	19.20	800
	Total UP	**10037**	**5746**	**4788**	**126.90**	**5200**
Uttarakhand	Total Hydro	1398	389	377	8.88	370
	Total Uttarakhand	**1398**	**389**	**377**	**8.88**	**370**
Delhi	Rajghat TPS (2*67.5)	135	0	0	-0.02	-1
	Delhi Gas Turbine (6x30 + 3x34)	282	81	81	1.95	81
	Pragati Gas Turbine (2x104+ 1x122)	330	158	158	3.79	158
	Rithala GPS (3*36)	95	0	0	0.00	0
	Bawana GPS (6*250)	1370	268	269	6.81	284
	Badarpur TPS (NTPC) (3*95+2*210)	705	214	207	5.54	231
	Thermal (Total)	2917	721	715	18.08	753
	Total Delhi	**2917**	**721**	**715**	**18.08**	**753**
HP	Baspa HPS (IPP) (2*150)	300	30	0	1.25	52
	Malana HPS (IPP) (2*43)	86	0	0	0.00	0
	Other Hydro	728	216	138	3.94	164
	Total HP	**1114**	**246**	**138**	**5.19**	**216**
J & K	Baglihar HPS (IPP) (3*150)	450	270	120	3.78	158
	Other Hydro/IPP	436	88	47	1.43	60
	Gas/Diesel/Others	209	0	0	0.00	0
	Total J & K	**1094**	**358**	**167**	**5.21**	217
Total State Control Area Generation		**39597**	**17786**	**14691**	**383.58**	**15895**
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			**4882**	**2710**	**109.36**	**4556**
Total Regional Availability(Gross)		**64017**	**39502**	**26000**	**774.33**	**32176**

IV. Total Hydro Generation:

Regional Entities Hydro	**11432**	**6749**	**808**	**59.43**	**2476**
State Control Area Hydro	**5684**	**1668**	**1192**	**35.11**	**1376**
Total Regional Hydro	**17116**	**8417**	**2000**	**94.54**	**3852**

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	-50	-500	350	500	1.53	5.22	-3.69
Gwalior-Agra (D/C)	1743	1147	2092	0	39.07	0.00	39.07
Zerda-Kankroli	-22	-229	65	269	0.00	1.94	-1.94
Zerda-Bhinmal	76	-113	184	163	0.56	0.00	0.56
Malanpur-Auraiya	-65	-78	0	91	0.00	1.58	-1.58
Badod-Kota/Morak	-8	-127	0	147	0.00	1.99	-1.99
Mundra-Mohindergarh(HVDC)	2297	1902	2304	0	52.07	0.00	52.07
Vindhyachal - Rihand	0	0	0	0	0.00	0.00	0.00
Sub Total WR	**3971**	**2002**			**93.22**	**10.74**	**82.49**
Pusauli Bypass	425	425	425	0	10.32	0.00	10.32
MZP- GKP (D/C)	-40	-22	264	94	2.02	0.00	2.02
Patna-Balia(D/C)	350	301	547	0	10.04	0.00	10.04
B'Sharif-Balia (D/C)	20	19	190	63	1.67	0.00	1.67
Pusauli-Balia	166	130	0	223	0.00	3.47	-3.47
Gaya-Fatehpur (765 Kv)	70	-11	394	14	4.76	0.00	4.76
Pusauli-Sahupuri	95	102	148	0	2.82	0.00	2.82
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-30	-30	0	40	0.00	0.46	-0.46
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	-145	-206	158	223	0.00	0.83	-0.83
Sub Total ER	**911**	**708**			**31.62**	**4.76**	**26.87**
Total IR Exch	**4882**	**2710**			**124.85**	**15.49**	**109.36**

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
25.36	0.44	25.80	7.92	-9.82	3.05	11.70	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
42.78	55.86	98.64	26.87	82.49	109.36	-15.91	26.63	10.72

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	0.49	5.98	26.63	54.06	37.72	9.03	7.50	17.14	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	0.00	49.60	18.09	50.02	0.33	0.18	50.58	49.60

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	500.41	1114.30	505.07	1312.37	148.92	326.01
Pong	426.72	384.05	407.90	425.81	414.55	656.23	125.10	420.73
Tehri	829.79	740.04	814.80	892.26	817.65	955.25	46.94	161.00
Koteshwar	612.50	598.50	609.88	4.44	610.15	4.69	161.00	168.00
Chamera-I	760.00	748.75	759.33	0.00	0.00	0.00	53.67	59.83
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	508.42	2.78	513.17	2.37	58.30	130.96

*** 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	-392	27	0	-412	71	0	-10.48	2.07	-8.41
Delhi	-908	-15	-31	-543	234	-15	-15.05	2.75	-12.30
Haryana	-888	115	0	-877	120	0	-22.72	1.35	-21.37
HP	428	-169	0	399	-43	0	10.90	-3.86	7.04
J&K	640	0	0	438	98	0	12.22	1.15	13.37
CHD	-31	0	0	0	0	0	-0.24	0.04	-0.20
Rajasthan	489	492	2	489	-267	1	15.72	6.74	22.46
UP	46	0	0	116	0	0	1.27	0.00	1.27
Uttarakhand	214	155	14	214	456	0	5.14	7.90	13.05
Total	**-401**	**606**	**-14**	**-177**	**669**	**-14**	**-3.24**	**18.15**	**14.90**

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	-392	-487	316	3	0	0
Delhi	-448	-908	455	-46	-15	-41
Haryana	-877	-1062	135	-219	0	0
HP	494	379	10	-552	0	0
J&K	640	438	135	-114	0	0
CHD	0	-31	25	0	0	0
Rajasthan	846	489	493	-972	2	1
UP	116	6	0	0	0	0
Uttarakhand	214	214	527	147	39	0

XI. System Constraints:

XII. Grid Disturbance / Any Other Significant Event:

XIII. Weather Conditions For 15.12.2014 :

Inclement weather

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 : 15.12.2014 **पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER**