पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)

उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 28.12.2014
Date of Reporting : 29.12.2014

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
38332	1839	40171	50.14	30242	923	31165	50.23	824.4	49.09

* 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	45.21	6.37		51.58	36.23	34.64	-1.59	86.23	0.00
Haryana	57.82	0.41		58.23	59.43	57.86	-1.58	116.08	0.06
Rajasthan	110.37	3.51	2.40	116.28	91.29	92.63	1.34	208.91	0.00
Delhi	22.19			22.19	46.32	47.29	0.98	69.49	0.00
UP	154.00	5.00		159.00	82.56	79.96	-2.60	238.96	40.92
Uttarakhand		6.93		6.93	26.17	27.26	1.10	34.19	0.18
HP		4.23		4.23	20.08	19.79	-0.29	24.02	0.36
J & K		4.84	0.00	4.84	35.05	38.00	2.95	42.85	7.57
Chandigarh				0.00	3.46	3.63	0.27	3.63	0.00
Total	**389.59**	**31.30**	**2.40**	**423.29**	**400.59**	**401.08**	**0.58**	**824.36**	**49.09**

* 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	4344	0	-442	-437	2882	0	122	-357	4434
Haryana	5402	0	-134	-804	4245	0	-15	-768	5486
Rajasthan	9259	0	-145	1191	7990	0	93	1462	9859
Delhi	3395	0	-150	-128	1965	0	299	-1081	4150
UP	11028	1520	-172	42	9409	610	-270	68	11028
Uttarakhand	1771	0	27	757	1202	0	61	514	1771
HP	1217	15	-68	412	758	15	-55	521	1260
J&K	1722	304	-109	649	1690	298	34	666	2015
Chandigarh	194	0	-3	24	101	0	22	-31	209
Total	**38332**	**1839**	**-1196**	**1707**	**30242**	**923**	**292**	**996**	**38332**

* 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	1450	1569	1385	36.84	1535	34.19	2.65
	Rihand I STPS (2*500)	1000	867	912	802	21.76	907	20.27	1.49
	Rihand II STPS (2*500)	1000	957	958	799	23.09	962	21.75	1.34
	Rihand III STPS (2*500)	1000	968	976	868	22.88	953	21.72	1.16
	Dadri I STPS (4*210)	840	609	569	399	12.85	535	12.14	0.71
	Dadri II STPS (2*490)	980	975	879	665	20.26	844	19.68	0.58
	Unchahar I TPS (2*210)	420	401	380	280	8.86	369	8.70	0.16
	Unchahar II TPS (2*210)	420	398	342	299	8.70	362	8.03	0.67
	Unchahar III TPS (1*220)	210	78	0	145	1.49	62	1.47	0.02
	ISTPP (Jhajjhar) (3*500)	1500	1000	940	875	21.16	882	22.38	-1.22
	Dadri GPS (4*130.19+2*154.51)	830	840	308	255	6.82	284	6.78	0.05
	Anta GPS (3*88.71+1*153.2)	419	426	194	219	5.04	210	5.05	-0.01
	Auraiya GPS (4*111.19+2*109.30)	663	675	220	224	5.35	223	5.14	0.21
	Dadri Solar	5	1	0	0	0.10	4	0.02	0.07
	Unchahar Solar	10	3	0	0	0.01	0	0.07	-0.06
	Sub Total (A)	**11297**	**9648**	**8247**	**7215**	**195**	**8134**	**187**	**8**
B. NPC	NAPS (2*220)	440	327	371	375	8.09	337	7.85	0.24
	RAPS- B (2*220)	440	408	453	453	9.85	410	9.79	0.05
	RAPS- C (2*220)	440	0	0	0	-0.20	-8	0.00	-0.20
	Sub Total (B)	**1320**	**735**	**824**	**828**	**17.74**	**739**	**17.64**	**0.10**
C. NHPC	Chamera I HPS (3*180)	540	356	351	0	1.16	48	1.08	0.08
	Chamera II HPS (3*100)	300	300	291	0	1.33	55	1.15	0.18
	Chamera III HPS (3*77)	231	154	158	0	0.68	28	0.65	0.03
	Bairasuil HPS(3*60)	180	179	132	0	0.41	17	0.35	0.06
	Salal-HPS (6*115)	690	99	229	65	2.49	104	2.37	0.12
	Tanakpur-HPS (3*40)	94	26	46	26	0.68	28	0.63	0.05
	Uri-I HPS (4*120)	480	107	203	110	2.75	114	2.56	0.18
	Uri-II HPS (4*60)	240	0	0	0	0.00	0	0.00	0.00
	Dhauliganga-HPS (4*70)	280	69	71	0	1.26	52	1.24	0.01
	Dulhasti-HPS (3*130)	390	387	402	0	2.91	121	2.80	0.11
	Sewa-II HPS (3*40)	120	79	41	0	0.22	9	0.24	-0.02
	Parbati 3 (4*130)	520	0	0	0	0.00	0	0.00	0.00
	Sub Total (C)	**4065**	**1756**	**1923**	**201**	**14**	**579**	**13**	**1**
D.SJVNL	NJPC (6*250)	1500	1605	1604	0	6.31	263	6.31	0.00
	Rampur HEP (4*68.67)	275	420	433	0	1.78	74	1.74	0.04
	Sub Total (D)	1775	2025	2037	0	8.09	337	8.05	0.03
E. THDC	Tehri HPS (4*250)	1000	1032	1034	0	7.84	327	7.70	0.14
	Koteshwar HPS (4*100)	400	116	301	90	2.85	119	2.80	0.05
	Sub Total (E)	**1400**	**1148**	**1335**	**90**	**10.69**	**446**	**10.50**	**0.19**
F. BBMB	Bhakra HPS (3*108+2*126+6*157)	1514	585	1050	346	14.24	594	14.03	0.22
	Dehar HPS (6*165)	990	112	165	0	2.73	114	2.69	0.04
	Pong HPS (6*66)	396	233	384	60	5.53	230	5.58	-0.05
	Sub Total (F)	**2900**	**929**	**1599**	**406**	**22.50**	**938**	**22.30**	**0.21**
G. IPP(s)/JV(s)	ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	0	0	0.40	17	0.39	0.01
	KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	601	0	3.47	145	3.48	-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	136	210	4.85	202	5.45	-0.60
	Budhil HPS(IPP)	70	0	0	0	0.00	0	0.00	0.00
	Sub Total (G)	1662	0	737	210	8.72	363	9.32	-0.60
H. Total Regional Entities (A-G)		**24419**	**16242**	**16701**	**8950**	**276.84**	**11535**	**268.28**	**8.55**

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	740	630	15.31	638
	Guru Nanak Dev TPS(Bhatinda) (4*110)	440	90	95	2.10	87
	Guru Hargobind Singh TPS(L.mbt) (2*210+2*250)	920	346	380	9.29	387
	Goindwal(GVK)		0	0	0.00	0
	Rajpura (2*700)	1400	688	344	10.96	457
	Talwandi Saboo (1*660)	660	350	365	7.55	315
	Thermal (Total)	**4680**	**2214**	**1814**	**45.21**	**1884**
	Total Hydro	1148	235	221	6.37	266
	Total Punjab	**5828**	**2449**	**2035**	**51.58**	**2149**
Haryana	Panipat TPS (4*110+2*210+2*250)	1367	475	623	13.93	581
	DCRTPP (Yamuna nagar) (2*300)	600	491	238	9.35	389
	Faridabad GPS (NTPC)	432	316	343	7.54	314
	RGTPP (khedar) (IPP) (2*600)	1200	451	370	14.03	585
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP) (2*660)	1320	618	372	12.97	540
	Thermal (Total)	**4944**	**2351**	**1946**	**57.82**	**2409**
	Total Hydro	62	12	16	0.41	17
	Total Haryana	**5006**	**2363**	**1962**	**58.23**	**2426**
Rajasthan	kota TPS (2*110+2*195+3*210)	1240	958	949	23.90	996
	suratgarh TPS (6*250)	1500	1160	1166	28.87	1203
	Chabra TPS (3*250)	750	599	572	14.43	601
	Dholpur GPS (3*110)	330	121	89	2.23	93
	Ramgarh GPS (1*3 + 1*35.5 +2*37.5 +1*110 +1*50)	271	194	198	4.66	194
	RAPS A (NPC) (1*100+1*200)	300	148	150	4.12	172
	Barsingsar (NLC) (2*125)	250	191	187	4.43	185
	Giral LTPS (2*125)	250	65	65	1.22	51
	Rajwest LTPS (IPP) (8*135)	1080	610	613	13.99	583
	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	550	518	12.53	522
	Thermal (Total)	**8026**	**4596**	**4507**	**110**	**4599**
	Total Hydro	550	192	118	3.51	146
	Wind power	2798	112	40	1.48	62
	Biomass	99	28	28	0.67	28
	Solar	730	2	0	0.24	10
	Renewable/Others (Total)	3627	142	68	2.40	100
	Total Rajasthan	**12203**	**4930**	**4693**	**116.28**	**4845**
UP	Anpara TPS (3*210+2*500)	1630	1293	1292	30.20	1258
	Obra TPS (2*50+2*94+5*200)	1194	344	331	8.10	338
	Paricha TPS (2*110+2*220+2*250)	1140	775	798	18.80	783
	Panki TPS (2*105)	210	72	72	1.70	71
	Harduaganj TPS (1*60+1*105+2*250)	665	449	461	10.90	454
	Tanda TPS (NTPC) (4*110)	440	384	378	9.30	388
	Roza TPS (IPP) (4*300)	1200	1062	905	23.80	992
	Anpara-C (IPP) (2*600)	1200	993	972	23.90	996
	Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)	450	402	280	8.10	338
	Thermal (Total)	**8129**	**5774**	**5489**	**134.80**	**5617**
	Vishnuparyag HPS (IPP)	400	82	79	1.90	79
	Other Hydro	527	109	74	3.10	129
	Cogeneration	981	800	800	19.20	800
	Total UP	**10037**	**6765**	**6442**	**159.00**	**6546**
Uttarakhand	Total Hydro	1398	398	219	6.93	289
	Total Uttarakhand	**1398**	**398**	**219**	**6.93**	**289**
Delhi	Rajghat TPS (2*67.5)	135	0	0	-0.01	0
	Delhi Gas Turbine (6x30 + 3x34)	282	77	78	1.95	81
	Pragati Gas Turbine (2x104+ 1x122)	330	265	264	6.65	277
	Rithala GPS (3*36)	95	0	0	0.00	0
	Bawana GPS (6*250)	1370	265	295	5.32	222
	Badarpur TPS (NTPC) (3*95+2*210)	705	319	335	8.29	345
	Thermal (Total)	2917	926	972	22.19	925
	Total Delhi	**2917**	**926**	**972**	**22.19**	**925**
HP	Baspa HPS (IPP) (2*150)	300	29	0	0.93	39
	Malana HPS (IPP) (2*43)	86	0	0	0.19	8
	Other Hydro	728	140	123	3.11	129
	Total HP	**1114**	**169**	**123**	**4.23**	**176**
J & K	Baglihar HPS (IPP) (3*150)	450	150	148	3.59	150
	Other Hydro/IPP	436	64	48	1.25	52
	Gas/Diesel/Others	209	0	0	0.00	0
	Total J & K	**1094**	**214**	**196**	**4.84**	202
Total State Control Area Generation		**39597**	**18214**	**16642**	**423.29**	**17558**
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			**5538**	**5723**	**153.42**	**6393**
Total Regional Availability(Gross)		**64017**	**40453**	**31315**	**853.55**	**35485**

IV. Total Hydro Generation:

Regional Entities Hydro	**11432**	**7494**	**697**	**59.04**	**2460**
State Control Area Hydro	**5684**	**1329**	**967**	**31.30**	**1225**
Total Regional Hydro	**17116**	**8823**	**1664**	**90.34**	**3685**

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	200	200	200	0	4.72	0.00	4.72
Gwalior-Agra (D/C)	1352	1914	2218	0	44.20	0.00	44.20
Zerda-Kankroli	-45	-26	95	62	0.69	0.00	0.69
Zerda-Bhinmal	50	70	249	1	3.08	0.00	3.08
Malanpur-Auraiya	-70	-65	0	125	0.00	2.02	-2.02
Badod-Kota/Morak	48	-30	62	61	0.00	0.06	-0.06
Mundra-Mohindergarh(HVDC)	2099	2102	2105	0	50.78	0.00	50.78
Vindhyachal - Rihand	469	280	511	0	9.79	0.00	9.79
Sub Total WR	**4103**	**4445**			**113.27**	**2.09**	**111.18**
Pusauli Bypass	500	500	500	0	10.84	0.00	10.84
MZP- GKP (D/C)	96	20	264	96	1.34	0.00	1.34
Patna-Balia(D/C)	525	582	916	0	16.80	0.00	16.80
B'Sharif-Balia (D/C)	-88	10	176	134	0.32	0.00	0.32
Pusauli-Balia	96	20	264	96	1.34	0.00	1.34
Gaya-Fatehpur (765 Kv)	241	193	617	0	8.90	0.00	8.90
Pusauli-Sahupuri	158	128	160	0	2.83	0.00	2.83
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-8	-37	0	44	0.00	0.79	-0.79
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	-85	-138	246	144	0.67	0.00	0.67
Sub Total ER	**1435**	**1278**			**43.04**	**0.79**	**42.25**
Total IR Exch	**5538**	**5723**			**156.30**	**2.88**	**153.42**

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
27.40	0.33	27.73	13.60	-9.18	9.66	26.58	5.89	-5.89

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
56.88	99.81	156.70	42.25	111.18	153.42	-14.64	11.36	-3.27

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	1.20	6.45	18.12	44.91	46.41	17.55	13.98	4.64	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)
50.46	14:09:36	49.64	09:07:12	50.00	0.15	0.12	50.44	49.79

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	410	02:08	403	12:33	0.0	0.0	0.0	0.0
Gorakhpur	400	410	02:32	391	09:38	0.0	0.0	0.0	0.0
Bareilly	400	424	23:58	400	09:37	0.0	0.0	4.2	0.0
Kanpur	400	421	23:58	398	09:37	0.0	0.0	0.1	0.0
Dadri	400	422	02:31	403	10:35	0.0	0.0	3.2	0.0
Ballabhgarh	400	429	02:25	407	10:37	0.0	0.0	37.5	0.0
Bawana	400	427	02:13	408	10:35	0.0	0.0	30.9	0.0
Bassi	400	426	21:44	391	09:38	0.0	0.0	10.6	0.0
Hissar	400	417	02:14	397	10:37	0.0	0.0	0.0	0.0
Moga	400	424	02:23	405	10:35	0.0	0.0	11.0	0.0
Abdullapur	400	424	02:31	396	18:27	0.0	0.0	13.3	0.0
Nalagarh	400	428	02:31	412	18:21	0.0	0.0	55.2	0.0
Kishenpur	400	416	01:59	390	18:12	0.0	0.0	0.0	0.0
Wagoora	400	396	02:02	363	18:48	45.7	82.7	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	782	23:57	737	09:37	0.0	5.7	0.0	0.0
Balia	765	772	23:58	735	10:32	0.0	16.5	0.0	0.0
Moga	765	0	00:00	9999	00:00	0.0	0.0	0.0	0.0
Agra	765	798	23:57	751	09:35	0.0	0.0	0.0	0.0
Bhiwani	765	0	00:00	9999	00:00	0.0	0.0	0.0	0.0
Unnao	765	771	23:57	728	12:37	0.0	39.2	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	498.30	1029.80	502.82	1219.07	133.63	412.07
Pong	426.72	384.05	405.88	370.28	412.48	577.87	50.97	382.79
Tehri	829.79	740.04	811.00	822.28	813.85	880.00	41.28	181.00
Koteshwar	612.50	598.50	609.91	4.40	609.49	4.21	181.00	189.00
Chamera-I	760.00	748.75	759.42	0.00	0.00	0.00	37.02	30.86
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	507.14	0.50	511.84	2.42	37.46	27.32

*** 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	-418	61	0	-438	1	0	-11.11	0.72	-10.39
Delhi	-902	-159	-20	-546	417	0	-13.80	4.25	-9.55
Haryana	-892	124	0	-848	44	0	-22.07	1.68	-20.39
HP	475	46	0	446	-33	0	11.78	-1.62	10.15
J&K	599	67	0	424	225	0	11.54	3.20	14.75
CHD	-31	0	0	0	24	0	-0.25	0.41	0.16
Rajasthan	847	616	0	770	422	0	23.57	19.26	42.82
UP	68	0	0	42	0	0	0.03	0.00	0.03
Uttarakhand	213	273	28	213	532	12	5.12	10.16	15.28
Total	**-40**	**1028**	**8**	**63**	**1632**	**12**	**4.81**	**38.06**	**42.87**

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	-418	-513	216	0	0	0
Delhi	-197	-902	769	-337	0	-20
Haryana	-513	-1042	126	28	0	0
HP	520	426	46	-424	0	0
J&K	599	424	225	-18	0	0
CHD	0	-31	49	0	0	0
Rajasthan	1202	765	1419	239	0	0
UP	104	-180	0	0	0	0
Uttarakhand	213	213	532	227	34	8

XI. System Constraints:

XII. Grid Disturbance / Any Other Significant Event:

XIII. Weather Conditions For 28.12.2014 :

Fog

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 : 28.12.2014 **पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER**