पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)

उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 24.11.2014
Date of Reporting : 25.11.2014

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
37613	1532	39145	50.03	27637	1730	29367	50.12	770.8	52.76

* 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	43.80	7.07		50.87	47.47	49.78	2.31	100.64	0.00
Haryana	52.17	0.35		52.52	54.36	55.02	0.67	107.54	0.00
Rajasthan	84.36	4.85	8.45	97.65	84.83	95.79	10.96	193.44	0.00
Delhi	21.18			21.18	37.84	37.09	-0.75	58.26	0.00
UP	114.42	3.32		117.75	91.90	93.45	1.55	211.19	52.64
Uttarakhand		7.97		7.97	24.35	24.23	-0.11	32.21	0.12
HP		5.71		5.71	17.24	18.40	1.16	24.12	0.00
J & K		6.45	0.00	6.45	30.34	33.71	3.37	40.16	0.00
Chandigarh				0.00	3.39	3.26	-0.14	3.26	0.00
Total	**315.92**	**35.73**	**8.45**	**360.09**	**391.71**	**410.72**	**19.01**	**770.82**	**52.76**

* 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	4715	0	107	-197	3465	0	138	-478	5261
Haryana	6054	0	70	-601	3328	0	141	-678	6054
Rajasthan	8665	0	764	981	7491	0	96	1591	9261
Delhi	3109	0	-40	-409	1386	0	-161	-999	3122
UP	10084	1490	-32	144	8619	1730	306	60	10084
Uttarakhand	1669	40	-61	669	1024	0	26	441	1686
HP	1266	2	12	170	704	0	-18	347	1300
J&K	1882	0	-3	433	1537	0	106	406	1882
Chandigarh	170	0	-21	0	84	0	-1	-30	174
Total	**37613**	**1532**	**797**	**1189**	**27637**	**1730**	**633**	**660**	**37613**

* 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	1530	1649	1637	36.78	1533	36.66	0.12
	Rihand I STPS (2*500)	1000	863	908	849	21.98	916	20.44	1.53
	Rihand II STPS (2*500)	1000	970	1045	903	24.35	1015	22.87	1.48
	Rihand III STPS (2*500)	1000	470	501	465	11.92	497	11.06	0.86
	Dadri I STPS (4*210)	840	815	769	604	16.90	704	15.91	0.99
	Dadri II STPS (2*490)	980	980	986	716	20.28	845	20.15	0.13
	Unchahar I TPS (2*210)	420	400	409	306	9.49	396	8.75	0.75
	Unchahar II TPS (2*210)	420	399	357	308	9.35	390	8.56	0.79
	Unchahar III TPS (1*220)	210	200	197	151	4.68	195	4.31	0.37
	ISTPP (Jhajjhar) (3*500)	1500	1500	1104	913	23.13	964	24.63	-1.50
	Dadri GPS (4*130.19+2*154.51)	830	819	353	420	9.40	392	9.30	0.10
	Anta GPS (3*88.71+1*153.2)	419	411	342	250	8.23	343	8.29	-0.06
	Auraiya GPS (4*111.19+2*109.30)	663	438	323	273	7.39	308	7.28	0.11
	Dadri Solar	5	1	0	0	0.02	1	0.03	-0.01
	Unchahar Solar	10	3	0	0	0.03	1	0.07	-0.04
	Sub Total (A)	**11297**	**9800**	**8943**	**7795**	**204**	**8497**	**198**	**6**
B. NPC	NAPS (2*220)	440	292	327	333	7.05	294	7.01	0.04
	RAPS- B (2*220)	440	408	452	451	9.78	408	9.79	-0.01
	RAPS- C (2*220)	440	430	457	459	9.97	415	10.32	-0.35
	Sub Total (B)	**1320**	**1130**	**1236**	**1243**	**26.80**	**1117**	**27.12**	**-0.32**
C. NHPC	Chamera I HPS (3*180)	540	534	185	0	2.08	87	1.80	0.28
	Chamera II HPS (3*100)	300	200	209	0	1.24	52	1.30	-0.06
	Chamera III HPS (3*77)	231	231	227	0	0.79	33	0.75	0.04
	Bairasuil HPS(3*60)	180	120	120	0	0.59	25	0.54	0.05
	Salal-HPS (6*115)	690	156	228	207	3.86	161	3.74	0.13
	Tanakpur-HPS (3*40)	94	31	62	30	0.85	35	0.75	0.10
	Uri-I HPS (4*120)	480	183	243	147	4.63	193	4.37	0.26
	Uri-II HPS (4*60)	240	0	0	0	0.00	0	0.00	0.00
	Dhauliganga-HPS (4*70)	280	208	209	0	1.37	57	1.30	0.07
	Dulhasti-HPS (3*130)	390	387	393	0	3.50	146	3.40	0.10
	Sewa-II HPS (3*40)	120	79	86	0	0.27	11	0.24	0.03
	Parbati 3 (4*130)	520	0	0	0	0.00	0	0.00	0.00
	Sub Total (C)	**4065**	**2129**	**1962**	**384**	**19**	**799**	**18**	**1**
D.SJVNL	NJPC (6*250)	1500	1605	1357	0	7.93	331	8.01	-0.08
	Rampur HEP (4*68.67)	275	350	367	0	2.12	88	2.14	-0.02
	Sub Total (D)	1775	1955	1724	0	10.05	419	10.15	-0.10
E. THDC	Tehri HPS (4*250)	1000	1060	1064	0	7.58	316	7.50	0.08
	Koteshwar HPS (4*100)	400	104	201	91	2.47	103	2.45	0.02
	Sub Total (E)	**1400**	**1164**	**1265**	**91**	**10.05**	**419**	**9.95**	**0.10**
F. BBMB	Bhakra HPS (3*108+2*126+6*157)	1514	529	1026	363	12.99	541	12.69	0.30
	Dehar HPS (6*165)	990	144	330	140	3.64	152	3.47	0.18
	Pong HPS (6*66)	396	178	324	0	4.35	181	4.27	0.08
	Sub Total (F)	**2900**	**851**	**1680**	**503**	**20.98**	**874**	**20.42**	**0.56**
G. IPP(s)/JV(s)	ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	71	0	0.66	27	0.64	0.01
	KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	700	0	4.48	187	4.44	0.04
	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	73	2.56	107	2.50	0.07
	Budhil HPS(IPP)	70	0	70	0	0.21	9	0.21	0.00
	Sub Total (G)	1662	0	977	73	7.91	330	7.79	0.12
H. Total Regional Entities (A-G)		**24419**	**17029**	**17787**	**10089**	**298.91**	**12455**	**291.92**	**6.99**

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	160	3.95	165
	Guru Nanak Dev TPS(Bhatinda) (4*110)	440	108	90	2.20	92
	Guru Hargobind Singh TPS(L.mbt) (2*210+2*250)	920	460	364	8.97	374
	Goindwal(GVK)		0	0	0.00	0
	Rajpura (2*700)	1400	705	703	18.31	763
	Talwandi Saboo (1*660)	660	375	374	10.37	432
	Thermal (Total)	**4680**	**1808**	**1691**	**43.80**	**1825**
	Total Hydro	1148	391	198	7.07	295
	Total Punjab	**5828**	**2199**	**1889**	**50.87**	**2119**
Haryana	Panipat TPS (4*110+2*210+2*250)	1367	0	0	0.00	0
	DCRTPP (Yamuna nagar) (2*300)	600	271	239	6.03	251
	Faridabad GPS (NTPC)	432	0	0	0.00	0
	RGTPP (khedar) (IPP) (2*600)	1200	1038	713	20.92	872
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP) (2*660)	1320	1235	801	25.22	1051
	Thermal (Total)	**4944**	**2544**	**1753**	**52.17**	**2174**
	Total Hydro	62	15	18	0.35	15
	Total Haryana	**5006**	**2559**	**1771**	**52.52**	**2188**
Rajasthan	kota TPS (2*110+2*195+3*210)	1240	836	785	19.97	832
	suratgarh TPS (6*250)	1500	941	1138	22.70	946
	Chabra TPS (3*250)	750	395	216	6.45	269
	Dholpur GPS (3*110)	330	126	129	3.13	131
	Ramgarh GPS (1*3 + 1*35.5 +2*37.5 +1*110 +1*50)	271	220	223	5.51	230
	RAPS A (NPC) (1*100+1*200)	300	186	170	4.50	188
	Barsingsar (NLC) (2*125)	250	94	94	2.16	90
	Giral LTPS (2*125)	250	81	92	1.78	74
	Rajwest LTPS (IPP) (8*135)	1080	821	391	16.75	698
	VS LIGNITE LTPS (IPP) (1*135)	135	0	0	0.00	0
	Kalisindh Thermal(1*600)	600	158	0	1.42	59
	Kawai(Adani) (2*660)	1320	0	0	0.00	0
	Thermal (Total)	**8026**	**3858**	**3238**	**84**	**3515**
	Total Hydro	550	228	83	4.85	202
	Wind power	2798	117	609	7.58	316
	Biomass	99	28	28	0.68	28
	Solar	730	0	0	0.19	8
	Renewable/Others (Total)	3627	145	637	8.45	352
	Total Rajasthan	**12203**	**4231**	**3958**	**97.65**	**4069**
UP	Anpara TPS (3*210+2*500)	1630	928	934	22.30	929
	Obra TPS (2*50+2*94+5*200)	1194	453	455	10.80	450
	Paricha TPS (2*110+2*220+2*250)	1140	764	771	18.10	754
	Panki TPS (2*105)	210	153	135	3.40	142
	Harduaganj TPS (1*60+1*105+2*250)	665	239	257	6.40	267
	Tanda TPS (NTPC) (4*110)	440	259	280	6.86	286
	Roza TPS (IPP) (4*300)	1200	765	810	18.69	779
	Anpara-C (IPP) (2*600)	1200	1019	514	16.48	687
	Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)	450	280	280	6.59	275
	Thermal (Total)	**8129**	**4860**	**4436**	**109.62**	**4568**
	Vishnuparyag HPS (IPP)	400	103	98	2.37	99
	Other Hydro	527	29	32	0.95	40
	Cogeneration	981	200	200	4.80	200
	Total UP	**10037**	**5192**	**4766**	**117.75**	**4807**
Uttarakhand	Total Hydro	1398	489	292	7.97	332
	Total Uttarakhand	**1398**	**489**	**292**	**7.97**	**332**
Delhi	Rajghat TPS (2*67.5)	135	0	0	0.00	0
	Delhi Gas Turbine (6x30 + 3x34)	282	80	80	1.91	80
	Pragati Gas Turbine (2x104+ 1x122)	330	151	154	3.66	152
	Rithala GPS (3*36)	95	0	0	0.00	0
	Bawana GPS (6*250)	1370	303	272	7.66	319
	Badarpur TPS (NTPC) (3*95+2*210)	705	315	309	7.94	331
	Thermal (Total)	2917	849	815	21.18	882
	Total Delhi	**2917**	**849**	**815**	**21.18**	**882**
HP	Baspa HPS (IPP) (2*150)	300	60	0	1.36	57
	Malana HPS (IPP) (2*43)	86	36	0	0.25	10
	Other Hydro	728	191	150	4.10	171
	Total HP	**1114**	**287**	**150**	**5.71**	**238**
J & K	Baglihar HPS (IPP) (3*150)	450	298	146	4.59	191
	Other Hydro/IPP	436	97	70	1.86	78
	Gas/Diesel/Others	209	0	0	0.00	0
	Total J & K	**1094**	**395**	**216**	**6.45**	269
Total State Control Area Generation		**39597**	**16201**	**13857**	**360.09**	**14905**
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			**4767**	**4689**	**129.13**	**5380**
Total Regional Availability(Gross)		**64017**	**38755**	**28635**	**788.13**	**32740**

IV. Total Hydro Generation:

Regional Entities Hydro	**11432**	**7402**	**978**	**65.40**	**2725**
State Control Area Hydro	**5684**	**1834**	**989**	**35.73**	**1390**
Total Regional Hydro	**17116**	**9236**	**1967**	**101.13**	**4115**

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	-200	50	400	0.13	3.34	-3.22
Gwalior-Agra (D/C)	1196	1214	1774	0	34.55	0.00	34.55
Zerda-Kankroli	-44	-177	32	177	0.00	1.80	-1.80
Zerda-Bhinmal	4	-95	160	118	0.18	0.00	0.18
Malanpur-Auraiya	-33	-49	0	54	0.00	0.98	-0.98
Badod-Kota/Morak	-23	-85	0	125	0.00	1.89	-1.89
Mundra-Mohindergarh(HVDC)	2098	2202	2207	0	52.30	0.00	52.30
Vindhyachal - Rihand	475	304	508	0	10.60	0.00	10.60
Sub Total WR	**3573**	**3114**			**97.75**	**8.01**	**89.74**
Pusauli Bypass	400	400	400	0	9.75	0.00	9.75
MZP- GKP (D/C)	10	238	366	48	4.33	0.00	4.33
Patna-Balia(D/C)	588	691	816	0	17.04	0.00	17.04
B'Sharif-Balia (D/C)	45	67	189	76	1.53	0.00	1.53
Pusauli-Balia	-146	-107	0	149	0.00	2.61	-2.61
Gaya-Fatehpur (765 Kv)	164	226	388	0	6.71	0.00	6.71
Pusauli-Sahupuri	141	87	145	0	2.40	0.00	2.40
K'nasa-Sahupuri	0	0	0	0	0.00	0.48	-0.48
Son Ngr-Rihand	-40	-46	0	48	0.00	0.91	-0.91
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	32	19	171	75	1.63	0.00	1.63
Sub Total ER	**1194**	**1575**			**43.39**	**4.00**	**39.39**
Total IR Exch	**4767**	**4689**			**141.14**	**12.01**	**129.13**

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
20.06	0.75	20.81	6.26	-14.44	11.24	20.08	4.77	-4.77

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
43.08	74.24	117.31	39.39	89.74	129.13	-3.69	15.51	11.81

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	0.63	5.00	23.61	62.43	57.15	11.74	6.67	0.83	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)
50.25	21.50	49.66	6.37	49.97	0.10	0.10	50.26	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	409	23:54	404	19:04	0.0	0.0	0.0	0.0
Gorakhpur	400	412	01:00	395	18:29	0.0	0.0	0.0	0.0
Bareilly	400	422	00:00	402	14:48	0.0	0.0	5.1	0.0
Kanpur	400	421	03:02	400	10:28	0.0	0.0	0.1	0.0
Dadri	400	421	03:05	400	10:29	0.0	0.0	0.3	0.0
Ballabhgarh	400	430	03:02	405	10:29	0.0	0.0	36.5	0.0
Bawana	400	426	00:00	406	10:28	0.0	0.0	25.3	0.0
Bassi	400	425	05:02	392	06:42	0.0	0.0	26.4	0.0
Hissar	400	415	00:00	395	18:32	0.0	0.0	0.0	0.0
Moga	400	424	02:51	403	09:12	0.0	0.0	30.5	0.0
Abdullapur	400	425	00:00	396	18:17	0.0	0.0	18.1	0.0
Nalagarh	400	424	00:00	403	15:14	0.0	0.0	20.9	0.0
Kishenpur	400	424	03:02	392	18:26	0.0	0.0	9.9	0.0
Wagoora	400	415	13:02	364	18:24	22.3	45.8	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	777	02:00	738	10:29	0.0	0.7	0.0	0.0
Balia	765	774	03:02	747	10:29	0.0	0.0	0.0	0.0
Moga	765	803	03:02	764	09:37	0.0	0.0	5.5	0.0
Agra	765	795	02:01	750	10:29	0.0	0.0	0.0	0.0
Bhiwani	765	807	00:00	766	10:29	0.0	0.0	20.0	0.0
Unnao	765	765	00:00	735	10:29	0.0	17.4	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	504.01	1272.20	508.67	1485.27	163.90	396.69
Pong	426.72	384.05	410.86	524.54	417.72	781.19	54.96	282.38
Tehri	829.79	740.04	819.60	992.00	821.45	1033.50	64.03	168.00
Koteshwar	612.50	598.50	609.09	4.10	609.10	4.10	168.00	163.00
Chamera-I	760.00	748.75	759.58	0.00	0.00	0.00	48.66	51.30
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	509.70	2.11	515.47	2.90	49.97	95.71

*** 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	-482	4	0	-457	260	0	-11.17	4.62	-6.55
Delhi	-901	-76	-21	-595	207	-21	-15.29	0.74	-14.55
Haryana	-769	91	0	-753	152	0	-19.57	2.57	-17.00
HP	423	-76	0	399	-229	0	9.51	-3.02	6.50
J&K	406	0	0	335	98	0	7.79	1.60	9.38
CHD	-30	0	0	0	0	0	-0.24	0.21	-0.04
Rajasthan	491	1098	2	491	488	2	11.78	20.48	32.27
UP	60	0	0	144	0	0	2.50	0.00	2.50
Uttarakhand	294	147	0	294	375	0	6.73	6.75	13.48
Total	**-508**	**1188**	**-19**	**-142**	**1351**	**-19**	**-7.97**	**33.96**	**26.00**

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	-457	-482	350	4	0	0
Delhi	-485	-901	310	-76	-21	-21
Haryana	-753	-972	165	-122	0	0
HP	423	379	74	-654	0	0
J&K	406	237	98	0	0	0
CHD	0	-30	25	0	0	0
Rajasthan	491	491	1439	420	2	2
UP	160	60	0	0	0	0
Uttarakhand	294	196	385	147	0	0

XI. System Constraints:

XII. Grid Disturbance / Any Other Significant Event:

XIII. Weather Conditions For 24.11.2014 :

Normal

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 : 24.11.2014 **पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER**