पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)

उत्तरी क्षेत्रीय भार प्रेषण केंद्र

CIN: U40105DL2009GOI188682

Power Supply Position in Northern Region for 13.07.2015
Date of Reporting : 14.07.2015

I. Regional Availability/Demand:

Evening Peak (20:00 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
38113	2577	40690	49.92	31508	1019	32528	50.08	829.9	57.65

* 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	20.88	18.19		39.07	100.53	97.96	-2.57	137.03	0.00
Haryana	0.00	0.66		0.66	105.93	103.53	-2.40	104.19	17.43
Rajasthan	94.13	0.00	18.59	112.72	52.28	52.56	0.28	165.27	0.00
Delhi	13.33			13.33	71.04	70.42	-0.62	83.75	0.19
UP	103.70	9.30		113.00	127.20	126.30	-0.90	239.30	31.54
Uttarakhand		24.22		24.22	10.78	11.38	0.61	35.60	0.18
HP		24.48		24.48	-0.37	0.37	0.74	24.85	0.00
J & K		15.48	0.00	15.48	18.46	19.71	1.25	35.20	8.31
Chandigarh				0.00	5.08	4.69	0.27	4.69	0.00
Total	**232.05**	**92.33**	**18.59**	**342.96**	**490.91**	**486.91**	**-3.33**	**829.87**	**57.65**

* 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 (20:00 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	6338	0	-64	1037	5123	0	-302	1402	6571
Haryana	5544	190	78	1549	3400	0	-468	1560	5712
Rajasthan	6709	0	114	-109	6493	0	-119	72	7612
Delhi	3888	0	-60	156	2678	0	-95	-271	4304
UP	10698	1870	-65	564	10185	760	250	824	10897
Uttarakhand	1750	40	97	51	1217	0	-14	-55	1750
HP	1042	0	20	-1254	810	0	53	-1475	1188
J&K	1910	477	236	-227	1469	259	23	-314	1951
Chandigarh	233	0	15	-25	133	0	-44	0	237
Total	**38113**	**2577**	**371**	**1740**	**31508**	**1019**	**-715**	**1742**	**39658**

* 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	1700	1880	1521	41.93	1747	37.72	4.21
	Rihand I STPS (2*500)	1000	850	927	664	18.15	756	17.69	0.46
	Rihand II STPS (2*500)	1000	943	1033	712	19.70	821	19.17	0.52
	Rihand III STPS (2*500)	1000	468	509	343	9.80	408	9.27	0.53
	Dadri I STPS (4*210)	840	810	389	268	9.28	387	8.67	0.61
	Dadri II STPS (2*490)	980	975	786	644	18.79	783	18.61	0.18
	Unchahar I TPS (2*210)	420	376	422	270	7.63	318	7.21	0.42
	Unchahar II TPS (2*210)	420	200	219	140	4.23	176	3.88	0.35
	Unchahar III TPS (1*220)	210	200	216	138	4.13	172	3.88	0.26
	ISTPP (Jhajjhar) (3*500)	1500	1500	500	344	9.04	377	9.50	-0.46
	Dadri GPS (4*130.19+2*154.51)	830	804	118	158	3.16	132	3.30	-0.14
	Anta GPS (3*88.71+1*153.2)	419	387	-1	-1	0.00	0	0.00	0.00
	Auraiya GPS (4*111.19+2*109.30)	663	640	111	133	2.63	110	2.48	0.15
	Dadri Solar	5	1	0	0	0.02	1	0.03	0.00
	Unchahar Solar	10	3	0	0	0.03	1	0.06	-0.03
	Singrauli Solar	15	3	0	0	0.09	4	0.07	0.02
	KHEP	800	0	802	605	14.15	589	0.00	14.15
	Sub Total (A)	**12112**	**9861**	**7911**	**5939**	**163**	**6782**	**142**	**21**
B. NPC	NAPS (2*220)	440	385	403	421	9.00	375	9.24	-0.24
	RAPS- B (2*220)	440	341	220	433	6.09	254	8.19	-2.11
	RAPS- C (2*220)	440	400	432	435	9.31	388	9.60	-0.29
	Sub Total (B)	**1320**	**1126**	**1055**	**1289**	**24.39**	**1016**	**27.03**	**-2.64**
C. NHPC	Chamera I HPS (3*180)	540	535	550	540	13.06	544	12.84	0.22
	Chamera II HPS (3*100)	300	300	303	302	7.22	301	7.20	0.03
	Chamera III HPS (3*77)	231	229	232	230	5.50	229	5.50	0.00
	Bairasuil HPS(3*60)	180	179	184	186	3.34	139	3.20	0.15
	Salal-HPS (6*115)	690	535	552	554	13.12	547	12.93	0.19
	Tanakpur-HPS (3*40)	94	92	94	94	1.92	80	2.21	-0.30
	Uri-I HPS (4*120)	480	398	472	451	10.07	420	9.55	0.52
	Uri-II HPS (4*60)	240	180	183	182	4.35	181	4.32	0.03
	Dhauliganga-HPS (4*70)	280	206	217	212	0.49	20	4.94	-4.45
	Dulhasti-HPS (3*130)	390	386	399	396	9.35	390	9.26	0.09
	Sewa-II HPS (3*40)	120	119	130	130	3.08	128	2.86	0.22
	Parbati 3 (4*130)	520	326	394	266	7.50	313	7.41	0.09
	Sub Total (C)	**4065**	**3487**	**3711**	**3542**	**79**	**3292**	**82**	**-3**
D.SJVNL	NJPC (6*250)	1500	1605	1605	1605	38.94	1622	38.51	0.43
	Rampur HEP (6*68.67)	412	371	365	375	8.92	372	8.91	0.01
	Sub Total (D)	**1912**	**1976**	**1970**	**1980**	**47.86**	**1994**	**47.42**	**0.44**
E. THDC	Tehri HPS (4*250)	1000	693	698	163	7.82	326	7.55	0.27
	Koteshwar HPS (4*100)	400	121	299	91	2.97	124	2.90	0.07
	Sub Total (E)	**1400**	**813**	**997**	**254**	**10.79**	**450**	**10.45**	**0.34**
F. BBMB	Bhakra HPS (3*108+2*126+6*157)	1514	945	1231	791	22.83	951	22.68	0.16
	Dehar HPS (6*165)	990	588	660	580	14.24	593	14.11	0.13
	Pong HPS (6*66)	396	13	66	0	0.30	12	0.32	-0.02
	Sub Total (F)	**2900**	**1546**	**1957**	**1371**	**37.37**	**1557**	**37.10**	**0.27**
G. IPP(s)/JV(s)	ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	232	231	5.51	229	5.36	0.14
	KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	1200	1200	28.74	1198	28.55	0.20
	Malana Stg-II HPS (2*50)	100	0	112	112	2.65	110	2.49	0.15
	Shree Cement TPS (2*150)	300	0	149	148	3.48	145	3.78	-0.30
	Budhil HPS(IPP) (2*35)	70	0	74	74	1.76	74	1.67	0.09
	Sub Total (G)	1662	0	1766	1764	42.14	1756	41.86	0.29
H. Total Regional Entities (A-G)		**25372**	**18810**	**19367**	**16139**	**404.33**	**16847**	**387.63**	**16.70**

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	3.93	164
	Guru Nanak Dev TPS(Bhatinda) (2*110+2*120)	460	110	80	2.02	84
	Guru Hargobind Singh TPS(L.mbt) (2*210+2*250)	920	255	216	4.99	208
	Goindwal(GVK)		0	0	0.00	0
	Rajpura (2*700)	1400	707	364	9.95	415
	Talwandi Saboo (1*660)	660	0	0	0.00	0
	Thermal (Total)	**4700**	**1282**	**820**	**20.88**	**870**
	Total Hydro	1000	738	785	18.19	758
	Total Punjab	**5700**	**2020**	**1605**	**39.07**	**1628**
Haryana	Panipat TPS (4*110+2*210+2*250)	1367	0	0	0.00	0
	DCRTPP (Yamuna nagar) (2*300)	600	0	0	0.00	0
	Faridabad GPS (NTPC)	432	0	0	0.00	0
	RGTPP (khedar) (IPP) (2*600)	1200	0	0	0.00	0
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP) (2*660)	1320	0	0	0.00	0
	Thermal (Total)	**4944**	**0**	**0**	**0.00**	**0**
	Total Hydro	62	28	29	0.66	27
	Total Haryana	**5006**	**28**	**29**	**0.66**	**27**
Rajasthan	kota TPS (2*110+2*195+3*210)	1240	640	612	14.73	614
	suratgarh TPS (6*250)	1500	438	390	9.36	390
	Chabra TPS (4*250)	1000	191	187	4.50	187
	Dholpur GPS (3*110)	330	0	0	0.00	0
	Ramgarh GPS (1*37.5 + 1*35.5 +2*37.5 +1*110 +1*50)	271	195	190	4.92	205
	RAPS A (NPC) (1*100+1*200)	300	147	145	3.41	142
	Barsingsar (NLC) (2*125)	250	166	171	3.91	163
	Giral LTPS (2*125)	250	0	0	0.00	0
	Rajwest LTPS (IPP) (8*135)	1080	693	567	18.04	752
	VS LIGNITE LTPS (IPP) (1*135)	135	0	0	0.00	0
	Kalisindh Thermal(1*600)	600	449	505	11.41	475
	Kawai(Adani) (2*660)	1320	968	780	23.85	994
	Thermal (Total)	**8276**	**3887**	**3547**	**94**	**3922**
	Total Hydro	550	0	0	0.00	0
	Wind power	3214	555	827	17.96	748
	Biomass	99	26	26	0.62	26
	Solar	730	0	0	0.00	0
	Renewable/Others (Total)	4043	581	853	18.59	774
	Total Rajasthan	**12869**	**4468**	**4400**	**112.72**	**4697**
UP	Anpara TPS (3*210+2*500)	1630	1139	897	22.00	917
	Obra TPS (2*50+2*94+5*200)	1194	339	356	8.40	350
	Paricha TPS (2*110+2*220+2*250)	1140	634	716	17.30	721
	Panki TPS (2*105)	210	122	59	2.30	96
	Harduaganj TPS (1*60+1*105+2*250)	665	502	513	11.50	479
	Tanda TPS (NTPC) (4*110)	440	370	283	8.30	346
	Roza TPS (IPP) (4*300)	1200	275	193	5.90	246
	Anpara-C (IPP) (2*600)	1200	810	977	20.00	833
	Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)	450	123	37	1.80	75
	Anpara-D(1*500)	500	0	0	0.00	0
	Lalitpur TPS(1*660)	660	200	158	3.30	138
	Thermal (Total)	**9289**	**4514**	**4189**	**101**	**4200**
	Vishnuparyag HPS (IPP)(including Alaknanada)	730	238	260	6.00	250
	Other Hydro	527	279	71	3.30	138
	Cogeneration	981	120	120	2.90	121
	Total UP	**11527**	**5151**	**4640**	**113.00**	**4458**
Uttarakhand	Total Hydro	1398	1027	998	24.22	1009
	Total Uttarakhand	**1398**	**1027**	**998**	**24.22**	**1009**
Delhi	Rajghat TPS (2*67.5)	135	0	0	0.00	0
	Delhi Gas Turbine (6x30 + 3x34)	282	59	35	1.31	54
	Pragati Gas Turbine (2x104+ 1x122)	330	142	145	3.45	144
	Rithala GPS (3*36)	95	0	0	0.00	0
	Bawana GPS (6*250)	1370	28	0	0.22	9
	Badarpur TPS (NTPC) (3*95+2*210)	705	390	302	8.36	348
	Thermal (Total)	2917	619	482	13.33	556
	Total Delhi	**2917**	**619**	**482**	**13.33**	**556**
HP	Baspa HPS (IPP) (2*100)	300	330	300	7.71	321
	Malana HPS (IPP) (2*43)	86	98	98	2.34	97
	Other Hydro	878	1025	1011	14.43	601
	Total HP	**1264**	**1453**	**1409**	**24.48**	**1020**
J & K	Baglihar HPS (IPP) (3*150)	450	450	450	10.80	450
	Other Hydro/IPP	560	191	192	4.68	195
	Gas/Diesel/Others	190	0	0	0.00	0
	Total J & K	**1200**	**641**	**642**	**15.48**	645
Total State Control Area Generation		**41881**	**15407**	**14205**	**342.96**	**14040**
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			**6481.43**	**2604**	**106.98**	**4457**
Total Regional Availability(Gross)		**67253**	**41255**	**32948**	**854.27**	**35345**

IV. Total Hydro Generation:

Regional Entities Hydro	**12369**	**10981**	**9294**	**226.08**	**9420**
State Control Area Hydro	**5811**	**4166**	**3934**	**92.33**	**3597**
Total Regional Hydro	**18180**	**15147**	**13228**	**318.41**	**13017**

V(A). Inter Regional Exchange [Import (+ve)/Export (-ve)] [Linkwise]

Element	Peak(20:00 Hrs)	Off Peak(03:00 Hrs)	Maximum Interchange (MW)		Energy (MU)		Net Energy
	MW	MW	Import	Export	Import	Export	MU
Vindhychal B/B	-150	-50	50	200	0.02	2.62	-2.60
Gwalior-Agra (D/C)	2355	1063	2355	0	34.94	0.00	34.94
Zerda-Kankroli	-92	-224	0	333	0.00	5.08	-5.08
Zerda-Bhinmal	-66	-196	0	304	0.00	4.22	-4.22
Malanpur-Auraiya	-22	-64	0	94	0.00	0.96	-0.96
Badod-Kota/Morak	21	-48	61	-48	0.03	0.00	0.03
Mundra-Mohindergarh(HVDC)	2403	1401	2505	0	43.59	0.00	43.59
Vindhyachal - Rihand	487	0	487	0	7.67	0.00	7.67
Sub Total WR	**4936**	**1882**			**86.24**	**12.87**	**73.37**
Pusauli Bypass	300	300	300	0	7.24	0.00	7.24
MZP- GKP (D/C)	300	242	576	0	8.22	0.00	8.22
Patna-Balia(D/C)	245	135	372	0	5.97	0.00	5.97
B'Sharif-Balia (D/C)	48	53	156	0	1.93	0.00	1.93
Pusauli-Balia	108	48	199	6	1.09	0.00	1.09
Gaya-Fatehpur (765 Kv)	150	-107	255	121	2.00	0.00	2.00
Pusauli-Sahupuri	155	112	167	0	3.31	0.00	3.31
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-40	-40	0	44	0.00	0.91	-0.91
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	0	-194	151	198	0.00	0.54	-0.54
Barh -GKP (D/C)	279	173	298	0	5.31	0.00	5.31
Sub Total ER	**1545**	**722**			**35.06**	**1.45**	**33.61**
Total IR Exch	**6481**	**2604**			**121.30**	**14.33**	**106.98**

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
24.56	3.87	28.44	8.10	8.22	0.00	-3.01	1.48	-1.48

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
38.01	82.94	120.96	33.61	73.37	106.98	-4.40	-9.58	-13.98

V(C). Inter National Exchange with Nepal [Import (+ve)/Export (-ve)] [Linkwise]

Element	Peak(20:00 Hrs)	Off Peak(03:00 Hrs)	Maximum Interchange (MW)		Energy (MU)		Net Energy
	MW	MW	Import	Export	Import	Export	MU
132 KV Tanakpur - Mahendarnagar	-26	-27	0	33	0	-1	0.52

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	2.29	12.92	43.13	81.74	55.42	3.54	0.00	0.00	NA

<---------- Frequency (Hz) ---------->				Average Frequency	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX	MIN
Freq	Time	Freq	Time	Hz			(Hz)	(Hz)
50.10	12.05	49.58	14.39	49.91	0.10	0.18	50.14	49.75

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	03:56	398	19:35	0.0	0.0	0.0	0.0
Gorakhpur	400	415	17:32	400	19:25	0.0	0.0	0.0	0.0
Bareilly	400	418	08:00	396	20:00	0.0	0.0	0.0	0.0
Kanpur	400	414	03:56	398	14:51	0.0	0.0	0.0	0.0
Dadri	400	423	03:50	401	14:34	0.0	0.0	9.7	0.0
Ballabhgarh	400	427	03:50	404	14:38	0.0	0.0	32.1	0.0
Bawana	400	425	01:57	407	10:54	0.0	0.0	29.9	0.0
Bassi	400	428	03:50	406	10:48	0.0	0.0	33.1	0.0
Hissar	400	422	03:25	401	14:37	0.0	0.0	3.6	0.0
Moga	400	419	03:19	402	14:36	0.0	0.0	0.0	0.0
Abdullapur	400	422	01:47	396	19:15	0.0	0.0	12.5	0.0
Nalagarh	400	424	03:25	403	16:31	0.0	0.0	18.2	0.0
Kishenpur	400	419	01:31	402	20:50	0.0	0.0	0.0	0.0
Wagoora	400	410	06:00	379	20:38	0.9	13.2	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	773	04:03	741	14:38	0.0	0.1	0.0	0.0
Balia	765	765	18:03	743	10:46	0.0	0.0	0.0	0.0
Moga	765	797	03:25	766	10:45	0.0	0.0	0.0	0.0
Agra	765	786	03:59	746	14:36	0.0	0.0	0.0	0.0
Bhiwani	765	807	01:48	772	14:33	0.0	0.0	17.3	0.0
Unnao	765	756	04:01	729	22:20	0.0	45.0	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	494.22	869.36	493.16	838.00	1549.38	771.66
Pong	426.72	384.05	408.14	435.19	400.50	230.85	792.45	26.25
Tehri	829.79	740.04	767.00	180.91	758.65	109.00	638.42	238.00
Koteshwar	612.50	598.50	610.85	5.00	611.11	5.10	238.00	196.00
Chamera-I	760.00	748.75	754.68	0.00	0.00	0.00	632.21	353.57
Rihand	268.22	252.98	845.20	184.40	837.00	81.00	0.00	0.00
RPS	352.80	343.81	1136.00	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	523.79	10.76	519.60	11.51	728.42	419.46

*** NA: Not Available**

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

State	Off- Peak Hours (03:00 Hrs)			Peak Hours (20:00 Hrs)			Day Energy (MU)		
	Bilateral (MW)	IEX (MW)	PXIL (MW)	Bilateral (MW)	IEX (MW)	PXIL (MW)	Bilateral (MU)	IEX / PXIL (MU)	Total (MU)
Punjab	1107	296	0	929	108	0	25.50	4.76	30.27
Delhi	258	-527	-2	430	-247	-27	8.98	-6.28	2.71
Haryana	1381	179	0	1345	204	0	32.03	4.88	36.91
HP	-1109	-367	0	-906	-348	0	-23.37	-8.14	-31.51
J&K	-535	221	0	-434	207	0	-11.42	-0.55	-11.96
CHD	0	0	0	0	-25	0	0.24	-0.11	0.13
Rajasthan	-489	559	2	-490	379	2	-11.75	11.05	-0.70
UP	824	0	0	564	0	0	14.08	0.00	14.08
Uttarakhand	-55	0	0	-72	98	25	-1.53	1.59	0.06
Total	**1381**	**362**	**0**	**1366**	**375**	**-1**	**32.77**	**7.21**	**39.98**

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	1255	915	300	108	0	0
Delhi	725	64	206	-820	0	-27
Haryana	1381	1115	226	178	0	0
HP	-906	-1109	-299	-475	0	0
J&K	-434	-586	271	-319	0	0
CHD	30	0	0	-25	0	0
Rajasthan	-489	-491	585	192	2	0
UP	824	446	0	0	0	0
Uttarakhand	-55	-104	98	0	25	0

XI. System Constraints:

XII. Grid Disturbance / Any Other Significant Event:

XIII. Weather Conditions For 13.07.2015 :
Normal

XIV. Synchronisation of new generating units :

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 : 13.07.2015

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER