

पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त महायुक्त कंपनी)



उत्तरी क्षेत्रीय भार प्रेषण केंद्र

CIN: U40105DL2009GOI188682

Power Supply Position in Northern Region for 10.07.2015
Date of Reporting : 11.07.2015

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
37019	5448	42467	49.98	41086	2082	43169	50.07	920.5	45.78

* 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:

State	State's Control Area Generation (Net MU)				Drawal Schedule (Net MU)	Actual Drawal (Net MU)	UI (Net MU)	Consumption (Net MU)	Shortages* (MU)
	Thermal	Hydro	Renewable/others \$	Total					
Punjab	61.92	22.06		83.98	103.04	101.85	-1.19	185.83	0.00
Haryana	39.14	0.48		39.62	108.76	106.20	-2.55	145.82	0.01
Rajasthan	71.99	0.57	29.64	102.20	42.37	49.63	7.27	151.84	6.36
Delhi	22.04			22.04	73.34	72.36	-0.99	94.39	0.06
UP	122.16	9.07		131.23	117.57	116.30	-1.27	247.53	30.99
Uttarakhand		20.70		20.70	12.72	14.24	1.52	34.94	1.26
HP		21.62		21.62	-0.04	2.98	3.02	24.60	0.00
J & K		14.56	0.00	14.56	16.27	15.69	-0.58	30.25	7.12
Chandigarh				0.00	5.61	5.31	0.27	5.31	0.00
Total	317.25	89.05	29.64	435.93	479.63	484.56	5.49	920.50	45.78

* Shortage furnished by the respective constituent. \$ Others include UP Co-generation and JK Diesel

II. B. State's Demand Met in MWs:

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	7206	0	-161	763	8327	0	28	1433	9001
Haryana	6015	0	-292	1591	6720	0	138	1488	6936
Rajasthan	6157	2856	765	-55	6140	0	278	-330	6796
Delhi	3934	0	-140	142	4125	0	110	0	4675
UP	9255	1868	-183	539	11689	1830	414	866	11706
Uttarakhand	1395	255	290	-55	1517	0	32	-55	1637
HP	970	0	241	-1271	925	0	225	-1421	1266
J&K	1874	469	105	-123	1430	252	145	-224	1918
Chandigarh	214	0	-27	20	214	0	5	0	262
Total	37019	5448	597	1552	41086	2082	1375	1756	42157

* 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 :

Entity	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	1189	1153	1537	31.14	1297	28.01	3.13
	Rihand I STPS (2*500)	1000	770	870	826	19.21	800	17.59	1.62
	Rihand II STPS (2*500)	1000	886	980	888	21.10	879	19.95	1.14
	Rihand III STPS (2*500)	1000	472	508	499	11.14	464	10.46	0.68
	Dadri I STPS (4*210)	840	810	441	530	12.74	531	12.72	0.02
	Dadri II STPS (2*490)	980	975	900	795	19.37	807	19.87	-0.50
	Unchahar I TPS (2*210)	420	402	434	409	9.09	379	9.10	-0.01
	Unchahar II TPS (2*210)	420	200	210	218	4.44	185	4.34	0.10
	Unchahar III TPS (1*220)	210	200	204	195	4.20	175	4.18	0.02
	ISTPP (Jhajihar) (3*500)	1500	1500	683	636	14.32	597	14.51	-0.19
	Dadri GPS (4*130.19+2*154.51)	830	804	392	296	7.51	313	7.57	-0.05
	Anta GPS (3*88.71+1*153.2)	419	383	0	0	0.00	0	0.00	0.00
	Auraiya GPS (4*111.19+2*109.30)	663	637	161	140	3.44	143	3.44	0.00
	Dadri Solar	5	0	0	0	0.00	0	0.01	-0.01
	Unchahar Solar	10	3	0	0	0.02	1	0.06	-0.04
	Singrauli Solar	15	3	0	0	0.05	2	0.07	-0.02
	KHEP	800	0	604	805	16.33	680	0.00	16.33
Sub Total (A)	12112	9234	7540	7774	174	7254	152	22	
B. NPC	NAPS (2*220)	440	373	421	413	9.03	376	8.95	0.08
	RAPS- B (2*220)	440	377	426	425	9.15	381	9.05	0.10
	RAPS- C (2*220)	440	400	433	434	9.30	388	9.60	-0.30
	Sub Total (B)	1320	1150	1280	1272	27.48	1145	27.60	-0.12
C. NHPC	Chamera I HPS (3*180)	540	534	543	543	12.97	541	12.81	0.16
	Chamera II HPS (3*100)	300	300	302	303	7.21	301	7.20	0.01
	Chamera III HPS (3*77)	231	231	233	235	5.55	231	5.54	0.01
	Bairasuil HPS(3*60)	180	179	187	185	4.08	170	3.95	0.13
	Salal-HPS (6*115)	690	636	667	660	15.49	645	15.36	0.13
	Tanakpur-HPS (3*40)	94	86	89	92	2.12	88	2.08	0.04
	Uri-I HPS (4*120)	480	475	473	473	11.48	478	11.40	0.08
	Uri-II HPS (4*60)	240	120	122	122	2.90	121	2.88	0.02
	Dhauliganga-HPS (4*70)	280	268	215	282	6.46	269	6.45	0.02
	Dulhasti-HPS (3*130)	390	386	396	394	9.32	388	9.26	0.06
	Sewa-II HPS (3*40)	120	119	127	128	2.93	122	2.86	0.07
	Parbati 3 (4*130)	520	49	0	0	6.21	259	0.98	5.23
	Sub Total (C)	4065	3384	3356	3416	87	3613	81	6
	D. SJVNL	NJPC (6*250)	1500	619	0	0	13.14	548	14.41
Rampur HEP (6*68.67)		412	152	0	0	3.27	136	3.23	0.04
Sub Total (D)		1912	772	0	0	16.42	684	17.64	-1.23
E. THDC	Tehri HPS (4*250)	1000	612	620	134	6.04	252	5.93	0.11
	Koteshwar HPS (4*100)	400	121	303	91	2.92	122	2.90	0.02
	Sub Total (E)	1400	733	923	225	8.96	373	8.83	0.13
F. BBMB	Bhakra HPS (3*108+2*126+6*157)	1514	860	1322	681	20.75	865	20.65	0.10
	Dehar HPS (6*165)	990	613	660	580	14.81	617	14.72	0.09
	Pong HPS (6*66)	396	216	318	126	4.99	208	5.18	-0.19
	Sub Total (F)	2900	1690	2300	1387	40.55	1690	40.55	0.00
G. IPP(s)/JV(s)	ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	230	231	5.49	229	5.36	0.13
	KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	0	1200	18.60	775	20.89	-2.28
	Malana Stg-II HPS (2*50)	100	0	112	112	2.65	110	2.49	0.16
	Shree Cement TPS (2*150)	300	0	290	295	6.74	281	6.75	0.00
	Budhil HPS(IPP) (2*35)	70	0	74	74	1.75	73	1.68	0.08
	Sub Total (G)	1662	0	705	1912	35.24	1468	37.16	-1.92
H. Total Regional Entities (A-G)	25372	16962	16104	15985	389.48	16228	364.42	25.06	

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	530	1260	19.41	809
	Guru Nanak Dev TPS(Bhatinda) (2*110+2*120)	460	80	80	1.90	79
	Guru Hargobind Singh TPS(L.mbt) (2*210+2*250)	920	808	667	15.44	643
	Goindwal(GVK)		0	0	0.00	0
	Rajpura (2*700)	1400	714	715	18.11	755
	Talwandi Saboo (1*660)	660	334	336	7.06	294
	Thermal (Total)	4700	2466	3058	61.92	2580
	Total Hydro	1000	933	933	22.06	919
	Total Punjab	5700	3399	3991	83.98	3499
	Haryana	Panipat TPS (4*110+2*210+2*250)	1367	0	0	0.00
DCRTPP (Yamuna nagar) (2*300)		600	226	226	5.28	220
Faridabad GPS (NTPC)		432	300	300	7.31	305
RGTTP (Khedar) (IPP) (2*600)		1200	374	367	8.71	363
Magnum Diesel (IPP)		25	0	0	0.00	0
Jhajjar(CLP) (2*660)		1320	740	739	17.85	744
Thermal (Total)		4944	1640	1632	39.14	1631
Total Hydro		62	4	29	0.48	20
Total Haryana		5006	1644	1661	39.62	1651
Rajasthan		kota TPS (2*110+2*195+3*210)	1240	270	361	7.57
	suratgarh TPS (6*250)	1500	454	392	9.60	400
	Chabra TPS (4*250)	1000	0	367	6.13	255
	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	172	206	4.67	195
	RAPS A (NPC) (1*100+1*200)	300	145	145	3.41	142
	Barsingar (NLC) (2*125)	250	81	82	2.04	85
	Giral LTPS (2*125)	250	0	0	0.00	0
	Rajwest LTPS (IPP) (8*135)	1080	939	518	15.77	657
	VS LIGNITE LTPS (IPP) (1*135)	135	0	0	0.00	0
	Kalisindh Thermal(1*600)	600	0	961	15.65	652
	Kawai(Adani) (2*660)	1320	0	439	7.16	298
	Thermal (Total)	8276	2061	3471	72	3000
	Total Hydro	550	105	0	0.57	24
	Wind power	3214	731	1301	26.74	1114
	Biomass	99	21	21	0.49	21
	Solar	730	0	0	2.41	100
	Renewable/Others (Total)	4043	752	1322	29.64	1235
	Total Rajasthan	12869	2918	4793	102.20	4258
	UP	Anpara TPS (3*210+2*500)	1630	1211	1100	28.50
Obra TPS (2*50+2*94+5*200)		1194	437	420	10.00	417
Paricha TPS (2*110+2*220+2*250)		1140	764	752	18.40	767
Panki TPS (2*105)		210	126	113	2.70	113
Harduaganj TPS (1*60+1*105+2*250)		665	419	466	10.40	433
Tanda TPS (NTPC) (4*110)		440	360	367	8.94	372
Roza TPS (IPP) (4*300)		1200	572	824	18.53	772
Anpara-C (IPP) (2*600)		1200	743	740	17.73	739
Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)		450	86	121	2.47	103
Anpara-D(1*500)		500	0	0	0.00	0
Lalitpur TPS(1*660)		660	0	176	1.59	66
Thermal (Total)		9289	4718	5079	119	4969
Vishnuparyag HPS (IPP)(including Alakanada)		730	228	284	5.73	239
Other Hydro		527	20	309	3.34	139
Cogeneration		981	120	120	2.90	121
Total UP		11527	5086	5792	131.23	5229
Uttarakhand	Total Hydro	1398	588	955	20.70	862
	Total Uttarakhand	1398	588	955	20.70	862
Delhi	Rajghat TPS (2*67.5)	135	0	0	0.00	0
	Delhi Gas Turbine (6x30 + 3x34)	282	36	35	0.81	34
	Pragati Gas Turbine (2x104+ 1x122)	330	265	268	6.50	271
	Rithala GPS (3*36)	95	0	0	0.00	0
	Bawana GPS (6*250)	1370	274	270	6.41	267
	Badarpur TPS (NTPC) (3*95+2*210)	705	380	393	8.31	346
	Thermal (Total)	2917	955	966	22.04	918
	Total Delhi	2917	955	966	22.04	918
HP	Baspa HPS (IPP) (2*100)	300	332	332	7.72	322
	Malana HPS (IPP) (2*43)	86	97	97	2.33	97
	Other Hydro	878	991	951	11.58	482
	Total HP	1264	1420	1380	21.62	901
J & K	Baglihar HPS (IPP) (3*150)	450	440	438	10.52	438
	Other Hydro/IPP	560	184	115	4.03	168
	Gas/Diesel/Others	190	0	0	0.00	0
	Total J & K	1200	624	553	14.56	606
Total State Control Area Generation		41881	16634	20091	435.93	17925
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			6908	6379	134.41	5600
Total Regional Availability(Gross)		67253	39646	42455	959.82	39754

IV. Total Hydro Generation:

Regional Entities Hydro	12369	7524	7375	195.72	8155
State Control Area Hydro	5811	3694	4159	89.05	3472
Total Regional Hydro	18180	11218	11534	284.77	11627

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 MU
	MW	MW	MW	MW	Import	Export	Import	Export	
	Vindhychal B/B	500	500	500	0	10.21	0.00	10.21	
Gwalior-Agra (D/C)	2092	2072	2126	0	35.84	0.00	35.84		
Zerda-Kankroli	-83	-272	0	390	0.00	5.54	-5.54		
Zerda-Bhinmal	-97	-253	17	417	0.00	4.94	-4.94		
Malanpur-Auraiya	-21	-12	0	88	0.00	0.95	-0.95		
Badod-Kota/Morak	127	-26	144	86	0.39	0.00	0.39		
Mundra-Mohinderqarh(HVDC)	2500	2500	2508	0	49.57	0.00	49.57		
Vindhychal - Rihand	0	0	0	0	0.00	0.00	0.00		
Sub Total WR	5018	4509			95.99	11.44	84.55		
Pusauli Bypass	300	300	300	0	7.29	0.00	7.29		
MZP- GKP (D/C)	340	510	696	0	11.60	0.00	11.60		
Patna-Balia(D/C)	354	274	449	0	8.13	0.00	8.13		
B'Sharif-Balia (D/C)	270	200	327	0	5.55	0.00	5.55		
Pusauli-Balia	155	128	239	39	1.35	0.00	1.35		
Gaya-Fatehpur (765 Kv)	149	125	291	0	4.73	0.00	4.73		
Pusauli-Sahupuri	120	119	129	0	2.92	0.00	2.92		
K'nasa-Sahupuri	0	0	0	0	0.96	-0.48	1.44		
Son Ngr-Rihand	-36	-33	0	37	0.00	0.58	-0.58		
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00		
Sasaram - Fatehpur(765 KV)	28	39	266	0	2.81	0.00	2.81		
Barh -GKP (D/C)	210	208	250	0	4.64	0.00	4.64		
Sub Total ER	1890	1870			49.96	0.10	49.86		
Total IR Exch	6908	6379			145.95	11.54	134.41		

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
29.40	3.71	33.11	6.61	6.27	0.00	-0.93	1.66	-1.66

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
41.38	90.23	131.61	49.86	84.55	134.41	8.47	-5.68	2.80

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 MU
	MW	MW	MW	MW	Import	Export	Import	Export	
	132 KV Tanakpur - Mahendamaagar	-27	-25	0	31	0	1	-0.53	

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	1.34	8.77	50.04	68.69	14.76	7.22	0.60	NA

Frequency (Hz)				Average Frequency	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX (Hz)	MIN (Hz)
Freq	Time	Freq	Time	Hz				
50.28	18.05	49.71	19.37	50.00	0.06	0.08	50.25	49.89

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	403	07:01	397	00:07	0.0	0.0	0.0	0.0
Gorakhpur	400	415	05:18	402	09:34	0.0	0.0	1.1	0.0
Bareilly	400	418	08:00	396	20:00	0.0	0.0	1.4	0.0
Kanpur	400	416	05:08	404	00:04	0.0	0.0	0.0	0.0
Dadri	400	421	05:15	407	00:10	0.0	0.0	0.0	0.0
Ballabgarh	400	425	05:14	412	00:06	0.0	0.0	12.2	0.0
Bawana	400	424	05:15	410	09:35	0.0	0.0	6.1	0.0
Bassi	400	427	05:14	406	16:27	0.0	0.0	28.0	0.0
Hissar	400	423	05:16	406	09:38	0.0	0.0	2.2	0.0
Moga	400	418	05:16	404	08:38	0.0	0.0	0.0	0.0
Abdullapur	400	426	17:59	396	12:29	0.0	0.0	14.6	0.0
Nalagarh	400	430	05:23	412	08:45	0.0	0.0	55.4	0.0
Kishenpur	400	422	05:16	407	19:31	0.0	0.0	2.6	0.0
Wagoora	400	417	06:33	383	20:39	0.0	10.1	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	776	05:13	750	00:10	0.0	0.0	0.0	0.0
Balia	765	770	18:04	750	00:00	0.0	0.0	0.0	0.0
Moga	765	802	05:15	768	09:46	0.0	0.0	0.8	0.0
Agra	765	793	05:13	762	20:17	0.0	0.0	0.0	0.0
Bhiwani	765	807	05:15	778	09:46	0.0	0.0	4.8	0.0
Unnao	765	769	05:13	746	00:06	0.0	0.0	0.0	0.0

IX. Reservoir Parameters:

Name of Reservoir	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	492.29	808.03	491.79	788.17	1678.90	702.82
Pong	426.72	384.05	406.90	397.88	400.55	230.85	1656.08	340.85
Tehri	829.79	740.04	760.10	120.54	755.35	86.00	639.82	188.00
Koteshwar	612.50	598.50	611.25	5.20	611.35	5.25	188.00	192.54
Chamera-I	760.00	748.75	757.27	0.00	0.00	0.00	669.24	351.66
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	523.31	10.75	520.22	10.45	400.53	403.64

* 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	1108	325	0	613	151	0	22.21	7.26	29.47
Delhi	258	-256	-2	465	-321	-2	7.39	-3.37	4.03
Haryana	1328	160	0	1362	229	0	31.64	4.62	36.26
HP	-1108	-313	0	-905	-365	0	-23.35	-7.76	-31.11
J&K	-535	310	0	-434	310	0	-11.41	0.48	-10.93
CHD	0	0	0	0	20	0	0.24	0.49	0.73
Rajasthan	-489	157	2	-489	432	2	-11.76	9.50	-2.26
UP	866	0	0	539	0	0	14.05	0.00	14.05
Uttarakhand	-55	0	0	-55	0	0	-2.17	0.00	-2.17
Total	1373	383	0	1096	456	0	26.85	11.22	38.07

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	1256	555	431	151	0	0
Delhi	767	64	192	-429	0	-2
Haryana	1404	1216	280	-18	0	0
HP	-905	-1108	-283	-542	0	0
J&K	-434	-585	335	-222	0	0
CHD	30	0	54	0	0	0
Rajasthan	-489	-493	649	85	2	0
UP	866	383	0	0	0	0
Uttarakhand	-55	-202	0	0	0	0

XI. System Constraints:**XII. Grid Disturbance / Any Other Significant Event:****XIII. Weather Conditions For 10.07.2015 :**

Rain in most part of NR.

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 :**