

पावर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिड की पूर्ण स्वामित्व प्राप्त महायक कंपनी)



उत्तरी क्षेत्रीय भार प्रेषण केंद्र

CIN: U40105DL2009GOI188682

Power Supply Position in Northern Region for 09.07.2015
Date of Reporting : 10.07.2015

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
43653	3367	47020	50.08	42988	2342	45330	50.05	1010.9	60.22

* 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	76.49	21.71		98.20	109.14	108.10	-1.04	206.30	0.00
Haryana	50.89	0.73		51.62	113.84	112.14	-1.70	163.76	0.01
Rajasthan	83.50	0.32	28.00	111.82	43.79	43.22	-0.57	155.04	0.00
Delhi	23.00			23.00	79.99	89.43	9.44	112.43	0.14
UP	130.48	10.69		141.16	130.20	132.78	2.58	273.94	46.14
Uttarakhand		22.87		22.87	13.02	14.41	1.39	37.28	2.31
HP		23.47		23.47	-4.62	-0.45	4.17	23.02	3.81
J & K		14.53	0.00	14.53	18.09	18.66	0.57	33.19	7.82
Chandigarh				0.00	5.98	5.94	0.27	5.94	0.00
Total	364.36	94.32	28.00	486.68	509.42	524.22	15.11	1010.89	60.22

* 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	9340	0	-13	1015	8193	0	-43	1103	9625
Haryana	7477	31	19	1793	7175	0	261	1159	7963
Rajasthan	6519	0	2	-97	6402	0	12	91	6781
Delhi	4288	30	-70	407	4886	0	525	208	4886
UP	11305	2365	317	617	12204	1920	276	580	12394
Uttarakhand	1757	145	165	-55	1454	155	107	-202	1757
HP	839	329	401	-1254	942	0	132	-1417	1285
J&K	1868	467	249	-246	1513	267	167	-348	1919
Chandigarh	261	0	-11	0	219	0	-1	0	295
Total	43653	3367	1059	2181	42988	2342	1436	1174	44781

* 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 [OG:(+ve), UG: (-ve)]	
									Net MU	Net MU
A. NTPC	Singrauli STPS (5*200+2*500)	2000	1690	1801	1869	42.00	1750	38.41	3.59	
	Rihand I STPS (2*500)	1000	844	916	901	20.92	872	19.32	1.60	
	Rihand II STPS (2*500)	1000	943	1003	1026	23.16	965	21.72	1.44	
	Rihand III STPS (2*500)	1000	409	491	220220	9.95	415	9.10	0.85	
	Dadri I STPS (4*210)	840	810	548	500	13.22	551	12.75	0.48	
	Dadri II STPS (2*490)	980	975	913	727	20.21	842	20.43	-0.22	
	Unchahar I TPS (2*210)	420	402	439	378	9.42	392	9.26	0.16	
	Unchahar II TPS (2*210)	420	200	221	153	4.43	185	4.45	-0.02	
	Unchahar III TPS (1*220)	210	200	221	178	4.43	185	4.44	-0.01	
	ISTPP (Jhajihar) (3*500)	1500	1500	628	617	14.18	591	14.55	-0.37	
	Dadri GPS (4*130.19+2*154.51)	830	800	382	246	7.61	317	7.84	-0.23	
	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	160	120	3.41	142	3.42	-0.02	
	Dadri Solar	5	0	0	0	0.01	1	0.01	0.00	
	Unchahar Solar	10	3	0	0	0.03	1	0.06	-0.03	
	Singrauli Solar	15	3	0	0	0.02	1	0.07	-0.05	
	KHEP	800	0	806	802	19.02	792	0.00	19.02	
Sub Total (A)	12112	9798	8529	227737	192	8001	166	26		
B. NPC	NAPS (2*220)	440	377	409	413	8.95	373	9.05	-0.10	
	RAPS- B (2*220)	440	377	423	425	9.12	380	9.05	0.07	
	RAPS- C (2*220)	440	400	433	438	9.32	388	9.60	-0.28	
	Sub Total (B)	1320	1154	1265	1276	27.39	1141	27.70	-0.31	
C. NHPC	Chamera I HPS (3*180)	540	534	541	542	13.01	542	12.81	0.20	
	Chamera II HPS (3*100)	300	300	303	303	7.22	301	7.20	0.02	
	Chamera III HPS (3*77)	231	229	233	237	5.62	234	5.50	0.12	
	Bairasuil HPS(3*60)	180	179	182	123	3.06	127	2.97	0.09	
	Salal-HPS (6*115)	690	653	666	664	15.76	657	15.69	0.07	
	Tanakpur-HPS (3*40)	94	92	92	92	2.23	93	2.21	0.02	
	Uri-I HPS (4*120)	480	475	474	471	11.50	479	11.40	0.10	
	Uri-II HPS (4*60)	240	120	122	122	2.90	121	2.88	0.02	
	Dhauliganga-HPS (4*70)	280	280	278	283	6.76	282	6.72	0.04	
	Dulhasti-HPS (3*130)	390	386	397	396	9.33	389	9.26	0.06	
	Sewa-II HPS (3*40)	120	113	129	0	2.16	90	2.04	0.12	
	Parbati 3 (4*130)	520	383	391	264	5.94	247	5.88	0.05	
	Sub Total (C)	4065	3745	3807	3496	85	3562	85	1	
D. SJVNL	NJPC (6*250)	1500	825	0	1632	20.03	834	21.02	-1.00	
	Rampur HEP (6*68.67)	412	375	0	374	4.73	197	4.69	0.04	
	Sub Total (D)	1912	1200	0	2006	24.75	1031	25.71	-0.96	
E. THDC	Tehri HPS (4*250)	1000	608	606	155	6.08	253	6.00	0.08	
	Koteshwar HPS (4*100)	400	121	301	90	2.93	122	2.90	0.03	
	Sub Total (E)	1400	729	907	245	9.01	375	8.90	0.11	
F. BBMB	Bhakra HPS (3*108+2*126+6*157)	1514	884	1312	681	21.27	886	21.21	0.06	
	Dehar HPS (6*165)	990	598	660	660	14.88	620	14.34	0.54	
	Pong HPS (6*66)	396	215	318	126	5.13	214	5.17	-0.04	
	Sub Total (F)	2900	1697	2290	1467	41.27	1720	40.72	0.55	
G. IPP(s)/JV(s)	ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	231	231	5.49	229	5.36	0.13	
	KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	1200	1200	28.68	1195	28.53	0.15	
	Malana Stg-II HPS (2*50)	100	0	112	112	2.65	110	2.49	0.16	
	Shree Cement TPS (2*150)	300	0	284	296	6.51	271	6.66	-0.15	
	Budhil HPS(IPP) (2*35)	70	0	74	74	1.76	74	1.68	0.09	
	Sub Total (G)	1662	0	1901	1912	45.10	1879	44.72	0.37	
	H. Total Regional Entities (A-G)	25372	18323	18699	238139	425.03	17709	398.16	26.87	

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	1120	1060	26.15	1090
	Guru Nanak Dev TPS(Bhatinda) (2*110+2*120)	460	80	102	2.09	87
	Guru Hargobind Singh TPS(L.mbt) (2*210+2*250)	920	599	577	14.15	589
	Goindwal(GVK)		0	0	0.00	0
	Rajpura (2*700)	1400	1381	981	26.28	1095
	Talwandi Saboo (1*660)	660	433	324	7.82	326
	Thermal (Total)	4700	3613	3044	76.49	3187
	Total Hydro	1000	783	933	21.71	904
	Total Punjab	5700	4396	3977	98.20	4092
	Haryana	Panipat TPS (4*110+2*210+2*250)	1367	213	436	5.49
DCRTPP (Yamuna nagar) (2*300)		600	445	452	10.59	441
Faridabad GPS (NTPC)		432	324	301	7.64	318
RGTPP (Khedar) (IPP) (2*600)		1200	370	366	8.66	361
Magnum Diesel (IPP)		25	0	0	0.00	0
Jhajjar(CL.P) (2*660)		1320	804	745	18.50	771
Thermal (Total)		4944	2156	2300	50.89	2120
Total Hydro		62	29	31	0.73	30
Total Haryana		5006	2185	2331	51.62	2151
Rajasthan		kota TPS (2*110+2*195+3*210)	1240	258	873	13.74
	suratgarh TPS (6*250)	1500	387	575	10.40	433
	Chabra TPS (4*250)	1000	333	379	9.00	375
	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	198	205	4.50	188
	RAPS A (NPC) (1*100+1*200)	300	144	144	3.41	142
	Barsingar (NLC) (2*125)	250	73	78	1.93	80
	Giral LTPS (2*125)	250	0	0	0.00	0
	Rajwest LTPS (IPP) (8*135)	1080	569	446	11.46	478
	VS LIGNITE LTPS (IPP) (1*135)	135	0	0	0.00	0
	Kalisindh Thermal(1*600)	600	915	1002	22.68	945
	Kawai(Adani) (2*660)	1320	437	0	6.38	266
	Thermal (Total)	8276	3314	3702	83	3479
	Total Hydro	550	0	0	0.32	14
	Wind power	3214	1346	1164	27.33	1139
	Biomass	99	17	17	0.42	17
	Solar	730	1	0	0.25	10
	Renewable/Others (Total)	4043	1364	1181	28.00	1167
	Total Rajasthan	12869	4678	4883	111.82	4659
	UP	Anpara TPS (3*210+2*500)	1630	1220	1296	30.10
Obra TPS (2*50+2*94+5*200)		1194	417	435	10.20	425
Paricha TPS (2*110+2*220+2*250)		1140	828	745	18.70	779
Panki TPS (2*105)		210	126	117	2.80	117
Harduaganj TPS (1*60+1*105+2*250)		665	476	474	11.10	463
Tanda TPS (NTPC) (4*110)		440	360	362	8.94	372
Roza TPS (IPP) (4*300)		1200	810	802	18.89	787
Anpara-C (IPP) (2*600)		1200	743	1080	21.34	889
Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)		450	122	121	2.59	108
Anpara-D(1*500)		500	0	0	0.00	0
Lalitpur TPS(1*660)		660	176	137	2.92	122
Thermal (Total)		9289	5278	5569	128	5316
Vishnuparyag HPS (IPP)(including Alakanada)		730	287	290	6.82	284
Other Hydro		527	230	279	3.86	161
Cogeneration		981	120	120	2.90	121
Total UP		11527	5915	6258	141.16	5597
Uttarakhand	Total Hydro	1398	962	947	22.87	953
	Total Uttarakhand	1398	962	947	22.87	953
Delhi	Rajghat TPS (2*67.5)	135	0	0	0.07	3
	Delhi Gas Turbine (6x30 + 3x34)	282	35	35	0.83	35
	Pragati Gas Turbine (2x104+ 1x122)	330	270	262	6.33	264
	Rithala GPS (3*36)	95	0	0	0.00	0
	Bawana GPS (6*250)	1370	273	274	6.43	268
	Badarpur TPS (NTPC) (3*95+2*210)	705	382	435	9.35	389
	Thermal (Total)	2917	960	1006	23.00	958
	Total Delhi	2917	960	1006	23.00	958
HP	Baspa HPS (IPP) (2*100)	300	330	330	7.91	330
	Malana HPS (IPP) (2*43)	86	98	97	2.33	97
	Other Hydro	878	497	483	13.22	551
	Total HP	1264	925	910	23.47	978
J & K	Baglihar HPS (IPP) (3*150)	450	442	432	10.50	437
	Other Hydro/IPP	560	184	115	4.03	168
	Gas/Diesel/Others	190	0	0	0.00	0
	Total J & K	1200	626	547	14.53	605
Total State Control Area Generation		41881	20647	20859	486.68	19994
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			6222.81	4564.17	122.79	5116
Total Regional Availability(Gross)		67253	45569	263562	1034.49	42819

IV. Total Hydro Generation:

Regional Entities Hydro	12369	9353	9558	216.36	9015
State Control Area Hydro	5811	3555	3647	94.32	3646
Total Regional Hydro	18180	12908	13205	310.67	12660

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	10.31	0.00	10.31	
Gwalior-Agra (D/C)	2165	1510	2165	0	37.04	0.00	37.04		
Zerda-Kankroli	-135	-252	0	428	0.00	6.29	-6.29		
Zerda-Bhinmal	-132	-228	0	355	0.00	5.39	-5.39		
Malanpur-Auraiya	-4	-10	0	35	0.00	0.20	-0.20		
Badod-Kota/Morak	24	-81	34	81	0.00	0.92	-0.92		
Mundra-Mohinderqarh(HVDC)	2500	1200	2506	0	45.59	0.00	45.59		
Vindhychal - Rihand	0	493	493	0	3.11	0.00	3.11		
Sub Total WR	4918	3132			96.05	12.80	83.25		
Pusauli Bypass	300	300	300	0	7.25	0.00	7.25		
MZP- GKP (D/C)	244	244	546	0	8.56	0.00	8.56		
Patna-Balia(D/C)	285	478	488	0	6.92	0.00	6.92		
B'Sharif-Balia (D/C)	20	151	185	0	2.86	0.00	2.86		
Pusauli-Balia	-33	-114	86	145	0.57	0.00	0.57		
Gaya-Fatehpur (765 Kv)	190	102	312	0	4.16	0.00	4.16		
Pusauli-Sahupuri	123	115	157	0	3.21	0.00	3.21		
K'nasa-Sahupuri	0	0	0	0	0.48	0.00	0.48		
Son Ngr-Rihand	-30	-17	0	40	0.00	0.49	-0.49		
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00		
Sasaram - Fatehpur(765 KV)	39	-41	210	46	1.30	0.00	1.30		
Barh -GKP (D/C)	166	214	306	0	4.72	0.00	4.72		
Sub Total ER	1305	1432			40.03	0.49	39.54		
Total IR Exch	6223	4564			136.08	13.29	122.79		

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
30.00	3.52	33.52	7.82	8.63	0.00	-1.65	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
43.00	85.95	128.95	39.54	83.25	122.79	-3.47	-2.70	-6.16

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 - Mahendamaragar	-25	-34	0	43	0	1	0	

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	1.19	7.97	50.71	75.56	12.81	3.30	0.49	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)
50.25	8.02	49.75	22.08	49.99	0.05	0.07	50.25	49.93

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	400	08:03	394	00:04	0.0	0.0	0.0	0.0
Gorakhpur	400	415	07:29	399	22:17	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	412	08:02	398	00:15	0.0	0.0	0.0	0.0
Dadri	400	415	08:01	400	14:36	0.0	0.0	0.0	0.0
Ballabgarh	400	421	08:05	404	19:47	0.0	0.0	0.1	0.0
Bawana	400	417	08:02	403	14:33	0.0	0.0	0.0	0.0
Bassi	400	424	03:59	406	19:45	0.0	0.0	11.3	0.0
Hissar	400	415	05:04	402	14:36	0.0	0.0	0.0	0.0
Moga	400	412	04:06	401	14:44	0.0	0.0	0.0	0.0
Abdullapur	400	419	18:01	396	11:11	0.0	0.0	0.0	0.0
Nalagarh	400	421	23:56	408	11:19	0.0	0.0	0.2	0.0
Kishenpur	400	420	08:03	403	19:42	0.0	0.0	0.0	0.0
Wagoora	400	409	06:01	383	20:46	0.0	9.1	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	772	08:05	740	19:47	0.0	0.6	0.0	0.0
Balia	765	750	00:00	750	00:00	0.0	0.0	0.0	0.0
Moga	765	0	00:00	0	00:00	100.0	100.0	0.0	0.0
Agra	765	0	00:00	0	00:00	100.0	100.0	0.0	0.0
Bhiwani	765	0	00:00	0	00:00	100.0	100.0	0.0	0.0
Unnao	765	0	00:00	0	00:00	100.0	100.0	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	491.55	788.17	491.43	778.28	1670.89	723.07
Pong	426.72	384.05	406.24	379.44	400.61	230.85	593.63	352.32
Tehri	829.79	740.04	758.00	105.63	754.50	80.49	467.35	192.00
Koteshwar	612.50	598.50	611.22	5.20	611.21	5.18	192.00	192.60
Chamera-I	760.00	748.75	756.44	0.00	0.00	0.00	462.44	352.49
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	522.82	10.26	520.10	11.15	386.64	407.48

* 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	949	154	0	940	75	0	25.23	3.76	28.99
Delhi	254	-44	-2	465	-55	-2	9.03	-0.20	8.83
Haryana	1216	-56	0	1563	230	0	33.38	3.23	36.62
HP	-1108	-309	0	-905	-348	0	-23.35	-7.61	-30.96
J&K	-535	187	0	-434	187	0	-11.41	-1.01	-12.42
CHD	0	0	0	0	0	0	0.24	0.06	0.30
Rajasthan	-493	581	2	-489	390	2	-11.75	13.13	1.39
UP	580	0	0	617	0	0	13.62	0.00	13.62
Uttarakhand	-202	0	0	-55	0	0	-1.80	0.00	-1.80
Total	660	513	0	1702	479	0	33.19	11.37	44.56

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	1256	850	275	75	0	0
Delhi	767	64	409	-283	0	-2
Haryana	1563	1216	259	-124	0	0
HP	-905	-1108	-276	-455	0	0
J&K	-434	-585	236	-338	0	0
CHD	30	0	30	0	0	0
Rajasthan	-489	-493	658	253	2	0
UP	871	440	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 09.07.2015 :**

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 :**